



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

November 8, 2002

Mr. Joseph Ziegler, Acting Assistant Manager  
of Licensing and Regulatory Compliance  
Yucca Mountain Site Characterization Office  
Office of Civilian Radioactive Waste Management  
U.S. Department of Energy  
P.O. Box 364629, MS 523  
North Las Vegas, NV 89036-8629

SUBJECT: MINUTES OF THE OCTOBER 17, 2002, MANAGEMENT MEETING

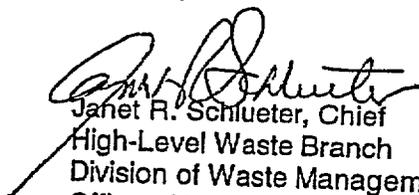
Dear Mr. Ziegler:

Enclosed is the meeting summary of the October 17, 2002, Management Meeting between the U.S. Department of Energy (DOE) and the U.S. Nuclear Regulatory Commission (NRC). The purpose of the meeting was to discuss the status of various management and programmatic issues concerning Yucca Mountain, Nevada.

The meeting was held at the DOE office in Las Vegas, Nevada, and via video conference to the NRC office in Rockville, Maryland and via telecon to the DOE office in Washington, DC; the NRC Region IV office in Arlington, Texas; and the Center for Nuclear Waste Regulatory Analyses in San Antonio, Texas.

If you have any questions regarding the enclosed meeting minutes, please contact Ted Carter of my staff at (301) 415-6684.

Sincerely,

  
Janet R. Schlueter, Chief  
High-Level Waste Branch  
Division of Waste Management  
Office of Nuclear Material Safety  
and Safeguards

Enclosure: Management Meeting Summary

cc: See attached list

Letter to Dennis Brown from Janet Schlueter dated November 8, 2002

cc:

R. Loux, State of Nevada	R. Massey, Lander County, NV
S. Frishman, State of Nevada	L. Stark, Lincoln County, NV
M. Chu, DOE/Washington, DC	M. Baughman, Lincoln County, NV
C. Einberg, DOE/Washington, DC	A. Funk, Mineral County, NV
S. Gomberg, DOE/Washington, DC	L. Bradshaw, Nye County, NV
N. Slater-Thompson, DOE/Washington, DC	M. Murphy, Nye County, NV
C. Newbury, YMPO	D. Chavez, Nye County, NV
W. J. Arthur III, YMPO	D. Weigel, GAO
R. Dyer, YMPO	W. Barnard, NWTRB
J. Ziegler, YMPO	R. Holden, NCAI
D. Brown, YMPO	A. Collins, NIEC
S. Mellington, YMPO	R. Arnold, Pahrump Paiute Tribe
C. Hanlon, YMPO	J. Larson, White Pine County
T. Gunter, YMPO	R. Clark, EPA
K. Hess, BSC	F. Marcinowski, EPA
D. Krisha, BSC	R. Anderson, NEI
S. Cereghino, BSC	R. McCullum, NEI
N. Williams, BSC	S. Kraft, NEI
M. Voegle, BSC/SAIC	J. Kessler, EPRI
D. Beckman, BSC/B&A	D. Duncan, USGS
B. Price, NV Legislative Committee	R. Craig, USGS
J. Meder, NV Legislative Counsel Bureau	W. Booth, Engineering Svcs, LTD
W. Briggs, Ross, Dixon & Bell	L. Lehman, T-REG, Inc
E. von Tiesenhausen, Clark County, NV	S. Echols, ECG
A. Kalt, Churchill County, NV	N. Rice, NV Congressional Delegation
G. McCorkell, Esmeralda County, NV	T. Story, NV Congressional Delegation
L. Fiorenzi, Eureka County, NV	J. Reynoldson, NV Congressional Delegation
A. Johnson, Eureka County, NV	S. Joya, NV Congressional Delegation
A. Remus, Inyo County, CA	J. Pegues, City of Las Vegas, NV
M. Yarbrow, Lander County, NV	R. Bahe, Benton Paiute Indian Tribe
I. Zabarte, W.S.N.C.	C. Bradley, Kaibab Band of Southern Paiutes
C. Anderson, Las Vegas Paiute Tribe	R. Joseph, Lone Pine Paiute-Shoshone Tribe
J. Birchim, Yomba Shoshone Tribe	L. Tom, Paiute Indian Tribes of Utah

L. Jackson, Timbisha Shoshone Tribe	E. Smith, Chemehuevi Indian Tribe
C. Meyers, Moapa Paiute Indian Tribe	J. Charles, Ely Shoshone Tribe
V. Miller, Fort Independence Indian Tribe	D. Crawford, Inter-Tribal Council of Nevada
A. Bacock, Big Pine Paiute Tribe of the Owens Valley	H. Blackeye, Jr., Duckwater Shoshone Tribe
R. Quintero, Inter-Tribal Council of Nevada (Chairman, Walker River Paiute Tribe)	D. Eddy, Jr. Colorado River Indian Tribes
M. Bengochia, Bishop Paiute Indian Tribe	G. Runkle, DOE, Washington, DC
J. Egan, Egan & Associates, PLLC	W. Briggs, Ross, Dixon & Bell
J. Leeds, Las Vegas Indian Center	H. Jackson, Public Citizen
K. Tilges, Shundahai Network	M. Smurr, BNFL, Inc.
J. Triechel, Nuclear Waste Task Force	Citizen Alert
W. Boyle, YMPO	

November 8, 2002

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Sincerely,

/RA/

Janet R. Schlueter, Chief  
High-Level Waste Branch  
Division of Waste Management  
Office of Nuclear Material Safety  
and Safeguards

Enclosure: Management Meeting Summary

cc: See attached list

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MYoung	SFlanders	RKJohnson	Tmatula		

S:/DWM/HLWB/gdh1/101702MgmtMtgMinutes.wpd ADAMS: ML023160513\*See Previous Concurrence

OFFICE	HLWB	HLWB	HLWB	HLWB
NAME	DHiggs*	TCarter*	NKStablein*	JRSchlueter
DATE	11/7/02	11/8/02	11/8/02	11/5/02

OFFICIAL RECORD COPY

**SUMMARY OF  
NRC/DOE QUARTERLY MANAGEMENT MEETING  
October 17, 2002**

**Introduction:**

This Nuclear Regulatory Commission/Department of Energy (NRC/DOE) Quarterly Management Meeting was held on October 17, 2002 at the Yucca Mountain Project Office in Las Vegas, Nevada, with video connection to the NRC in Rockville, Maryland, and audio connection to the Center for Nuclear Waste Regulatory Analysis (CNWRA) in San Antonio, Texas. Participants included representatives from the NRC, DOE, Bechtel SAIC Co. LLC (BSC), State of Nevada, Nye County, Electric Power Research Institute, Nuclear Energy Institute, and members of the public. Copies of the agenda and a list of attendees are attached as Enclosures 1 and 2, respectively.

**Opening Remarks:**

Margaret Federline (NRC) opened the meeting by stating that the NRC has reviewed the DOE's Management Improvement Initiatives (MII) document and commended DOE for implementing changes through the MII process. The NRC was impressed by the senior DOE management's commitment to the MII, especially in delineating the roles and responsibilities within the organization. However, Ms. Federline cautioned that the focus should be maintained on the outcomes and addressing previously identified issues.

With regards to NRC review of the MII, the NRC was disappointed in the level of detail in Appendix A of MII. They expected a similar level of detail as that provided in Appendix B. Ms. Federline noted that the NRC will adopt a performance-based approach in reviewing MII implementation. The NRC also hopes to see linkages between the performance measurement metrics and the associated outcomes. Other items of interest mentioned by Ms. Federline were:

- The identification of clear goals and refinement of effectiveness indicators
- Emphasis on open communications and periodic meetings with DOE
- Continuing and increased interactions with the NRC on Key Technical Issue resolution process
- Continuation of Licensing Support Network (LSN) and Electronic Information Exchange interactions
- Emphasis on future interactions, in particular, as related to the current engineering design activities

In summary, Ms. Federline noted that the focus of DOE's improvement program should be on outcomes that are detectable and observable.

Dr. Margaret Chu (DOE) briefly discussed the reorganization whereby there would be two Deputy Directors, one located at the DOE Headquarters in Washington, DC, and the other at the Office of Repository Development in Las Vegas, Nevada. She provided a brief career biography of John Arthur, the Las Vegas-based Deputy Director and indicated that Dr. Russ Dyer will work very closely with Mr. Arthur. Dr. Chu then introduced Mr. Dennis Brown as the new Director of the Office of Quality Assurance (QA). Dr. Chu acknowledged the receipt of the NRC's letter, dated October 3, 2002, on staff's review of the MII and noted that procedures are being prepared to implement this initiative. She also noted that DOE is assessing the impact on the FY 2003 budget in light of the "continuing resolution" and is developing means to maintain the current repository schedule.

Dr. Russ Dyer (DOE) provided an overview of the tactical approach to transitioning from site

recommendation to license application. The DOE characterized the overall sequence of work to support the license application to involve three major components - post-closure safety, design, and pre-closure safety analysis. An overview of the scope and schedule associated with these activities was presented. The NRC inquired if the documents developed between site recommendation and license application would be QA documents. In response, Dr. Dyer noted that documents used to feed the license application (LA) will meet the applicable QA requirements.

Dr. Dyer reiterated that DOE will continue to make the KTIs a top priority. He noted that some of the KTIs can not be closed until the repository models and analyses are completed. In some cases, these analyses will not be finished until 2004. He further stated that the project is trying to maintain schedule, in spite of the "continuing resolution" status of the Project's funding. Furthermore, he emphasized that some of the actions to complete model validations and LA-generation software will not be completed for some months and effectiveness of these actions can not be verified until they are implemented. DOE's intention is to maintain a critical view of these activities and ensure that the actions are taken to correct and prevent problems.

Dennis Brown (DOE), the newly assigned Director of the Office of Quality Assurance provided a brief summary of his career biography and experience prior to this assignment.

#### Presentations:

Joseph Ziegler (DOE) presented the Yucca Mountain LA status (Enclosure 3). DOE's plan for submittal of a LA to the NRC in December 2004 is on schedule. Programmatic sections of the LA are still under development as are the supporting documents. The focus of the work is on the design and engineering efforts. A Technical Exchange on Repository Design is scheduled for November 5-6, 2002.

DOE has adopted the risk-informed performance-based approach as it is defined in 10 CFR 63. DOE analysis and compliance arguments will be presented in the LA with updated models that include qualified data and validated models.

Bill Reamer (NRC) commented that based on DOE's current schedule for submittal of KTI agreement resolution information, the NRC might not have sufficient time to review DOE's submittals of models used for LA and fully resolve issues prior to LA. He indicated that the NRC expects DOE to take leadership to identify issues that exist in the pre-closure safety analyses area and communicate and discuss them in public and allow the NRC to review the issues in a timely manner. Mr. Ziegler agreed that it was important for DOE to keep the NRC informed of the designs and analyses as they are completed.

Sally Devlin (member of public) questioned why the Department of the Interior and the Bureau of Mines were not coordinated and involved in the review and approval cycle. Messrs. Ziegler and Dyer (DOE) informed her that these agencies were integrated into the safety assessment process earlier in the Project and that their responsibilities and concerns were incorporated into the safety management plan. Dr. Dyer stated that DOE follows Federal Occupational Safety and Health Administration Standards in conducting its activities at the Yucca Mountain Site.

Janet Schlueter (NRC) provided an update of the related NRC activities. She introduced Mr. Thomas Matula (NRC) as the new NRC Senior QA Specialist and the NRC point of contact for QA related issues. Ms. Schlueter stated that DOE's Risk Prioritization Report was under review and reiterated previous comments that it is important for DOE to continue submittal of all documents as soon as possible so that a comprehensive and timely review could be performed. She noted that the NRC is looking forward to

receiving a DOE "white paper" explaining the basis for potential use of less than fully qualified information to resolve KTI agreement items. The NRC is also assessing its own review processes for more timely and effective review of documents. Ms. Schlueter noted that the public comment period for the Yucca Mountain Review Plan had been extended through August 2002 and over 1,000 comments were received. She then provided a summary of recent DOE/NRC interactions and schedule for additional near-term interactions.

Dr. Gene Runkle (DOE) discussed DOE's implementation of the Management Improvement Initiatives (MII). Handouts from this discussion are provided in Enclosures 4 through 11. Dr. Runkle highlighted the five key areas associated with the MII including roles and responsibilities, project procedures, QA program, corrective action program, and safety conscious work environment (SCWE). Dr. Runkle provided an overview of how the strategies related to these five key areas of the MII program are being implemented by DOE and BSC. Also discussed were development of effectiveness indicators and closure and verification process for completion of action statements in MII. Effectiveness indicators for the MII program have been identified and are being developed and evaluated accordingly. Dr. Runkle noted that work has continued on closing of backlog of Office of Civilian Radioactive Waste Management concerns. The pre-2002 backlog of concerns has been cleared with one exception still in resolution process. The BSC Concerns Program is also in place and personnel are actively participating. Dr. Runkle stated that this is encouraging because it is an indication that some cultural changes are being made within the work force. Dr. Runkle added that self-identification is the primary means of improving the adherence to regulatory and Project requirements.

Judith Holmgren (member of public) asked how many people completed the SCWE training provided by DOE. DOE stated that approximately 400-500 managers and supervisors representing DOE, BSC, National Laboratories, USGS and all other contractors and subcontractor completed the training. It was noted that all of the Project's employees will have completed the training by the end of December 2002.

Larry Campbell (NRC) asked about the difference between the Technical Error Reports (TERs) and the Deficiency Identification Referrals (DIRs). DOE stated that TERs identify mistakes or omissions of a technical nature in an approved product other than administrative errors, such as typographical or syntax errors (unless they affect the results). TERs are not intended to identify conditions adverse to quality subject to Deficiency Reports (DRs) and are administered under the QA Program provisions for "nonconformances" with technical requirements. As part of the TER preparation process, Administrative Procedure AP-15.3Q, "Control of Technical Product Errors," requires that BSC Quality Engineering review the technical error description to determine the need for further corrective action in accordance with AP-16.1Q, *Management of Conditions Adverse to Quality*. Should this review identify a condition adverse to quality, either a DR or a Correction Action Report (CAR) would be issued. Because of previous problems in timely processing of TERs, NRC inquired as to whether AP-15.3Q had been revised to include timeliness criteria. After consultation with the BSC staff, Mr. Fray (BSC) advised that the procedure was being revised with the same timeliness criteria that are applied to DRs.

In contrast to the TERs, DIRs are used to document a newly identified condition adverse to quality that is found to be part of the extent of condition for a current, open DR or CAR being administered in accordance with AP-16.1Q. It is used to incorporate the evaluation and corrective action for the newly identified condition into an existing corrective action vehicle.

Susan Lynch (State of Nevada) asked if there were ongoing communications and interactions between BSC and DOE regarding commonality and tracking of SCWE issues identified by both DOE and BSC

SCWE programs. Dr. Runkle (DOE) stated that the programs were integrated and shared information across the organizational interfaces.

Robert Latta (NRC) noted that experience showed limited management involvement when it comes to timely closure of CARs and asked about the management process if a CAR were not closed in a timely fashion. Dr. Chu stated that implementation of MII and roles and responsibilities will address this concern.

Ram Murthy (DOE) provided the status of the QA program including a discussion of recent audit and surveillance activities, status of trend program, and verification of corrective action reports (Enclosure 12). Mr. Murthy discussed the number of audits that were completed, the status of DRs from those audits, Quality Observations, and the conclusion that the implementation of the overall QA program was satisfactory. In response to a question by Wes Patrick (CNWRA) regarding the criteria for distinction between performance based and compliance based audits, Dennis Brown (DOE) indicated that he will provide information during the next quarterly QA Meeting.

Timothy Gunter (DOE) provided an overview of the KTI status and schedule for FY2002-FY2005 (Enclosure 13). Mr. Gunter noted that DOE shares NRC's concerns regarding early resolution of the KTI agreement items. All agreement items except for one concerning the criticality validation report for Plutonium will be responded to prior to the LA submittal in December 2004. He also indicated that DOE will continue to look at ways to improve the schedule for resolution of the agreement items.

Sally Devlin (member of public) expressed concern about the lack of discussion about the proposed microbial attack on the waste packages. DOE noted that microbial induced corrosion was covered under some of the KTIs related to waste package issues. Ms. Devlin also found the public meetings in Las Vegas very inconvenient and wondered if there wasn't a better way for members of the public living at a distance from Las Vegas to attend these meetings. DOE stated that they are open to suggestions to improve the meetings.

Susan Lynch (State of Nevada) expressed concern about discussions that transpire and decisions made between the contractors and the government agencies regarding the KTI agreements and those discussions or decisions were not on the public record. Mr. Joseph Ziegler (DOE) and Mr. Bill Reamer (NRC) acknowledged that there were conversations of clarifying nature between the DOE, BSC, and the NRC. However, agreements are not changed nor new agreements made in these conversations. Any changes in the present agreements or any new agreements would be made only in prescribed processes and put in the public record or they would be part of the LA, also in the public record.

#### Action Items:

Tim Gunter (DOE) presented the status of the action items from past meetings. There were no new action items. The current status of action items is provided in Enclosure 14.

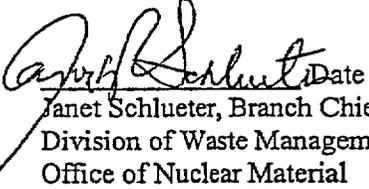
#### Closing Remarks:

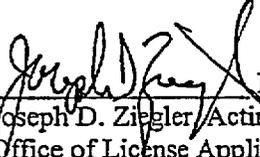
Bill Reamer (NRC) commented that the meeting was successful and that DOE's presentation improved his understanding of the MII. He was encouraged that the MII implementation will move forward. Dr. Margaret Chu (DOE) noted that she would like to look at effectiveness indicators regarding MII activities, especially those related to roles and responsibilities to make sure the related issues are addressed.

Judith Holmgren (Public) noted that radiation mitigation is solely dependent on waste package for the first

100 years, yet the waste package degradation issues remain unresolved. She requested the name of a DOE contact to provide information on waste package related schedule and activities. DOE noted that the requested information would be provided upon receipt of her name and address.

There were no additional closing remarks.

 Date 11/8/02  
Janet Schlueter, Branch Chief  
Division of Waste Management  
Office of Nuclear Material  
Safety and Safeguards  
U.S. Nuclear Regulatory Commission

 Date 11/6/02  
Joseph D. Ziegler, Acting AM  
Office of License Application  
and Strategy  
Office of Repository Development  
U.S. Department of Energy

## Enclosures

### NRC/DOE QUARTERLY MANAGEMENT MEETING October 17, 2002

<u>Enclosure</u>	<u>Description</u>
1	Agenda
2	Attendance List
3	License Application Status
4	Status of MII Implementation
5	Management Improvement Initiative Confirmation Review Process
6	Management Alignment Process for the MII
7	Program Manual, Phase 1
8	BSC QA Program Summary of Phase 2 Activities
9	MI Communication Process
10	Letter, Dr. Dyer, Ken Hess to Dr. Chu, MII Effectiveness Indicators, Dated October 15, 2002
11	MI Effectiveness Indicators Story
12	Status of QA Program
13	Status of KTI Agreement Items
14	Action Items
15	Table showing how SCWE recommendations from Morgan-Lewis report are being addressed

Enclosure 1

**Agenda**  
**DOE/NRC Quarterly Management Meeting**  
**October 17, 2002**  
**9:00 AM– 12:30 PM (PT)**  
**12:00 Noon – 3:30 PM (ET)**

**BSC**  
**Room 915**  
**9960 Covington Cross**  
**Las Vegas, NV**

*And via Videoconference to:*

**U. S. Nuclear Regulatory Commission**  
**Room O-3B4**  
**11555 Rockville Pike**  
**Rockville, MD**

*INTERESTED PARTIES MAY PARTICIPATE VIA TELECON BY CALLING 702-295-6082*

<b>9:00 AM</b>	<b>Introductions</b>	<b>ALL</b>
<b>9:10 AM</b>	<b>DOE Program/Project Update</b> <ul style="list-style-type: none"><li>• <b>Program Update</b></li><li>• <b>Project Update</b></li><li>• <b>LA Status</b></li></ul>	<b>DOE</b> <b>Dr. Chu</b> <b>Dr. Dyer</b> <b>Ziegler</b>
<b>9:50 AM</b>	<b>NRC Program Update</b>	<b>NRC</b>
<b>10:10 AM</b>	<b>Status of MII Implementation</b>	<b>Runkle</b>
<b>11:00 AM</b>	<b>Break</b>	<b>All</b>
<b>11:15 AM</b>	<b>Status of QA Program</b>	<b>Murthy</b>
<b>11:30 AM</b>	<b>Issues From QA Meeting</b>	<b>DOE/NRC</b>
<b>11:45 AM</b>	<b>Status of KTI Agreement Items</b>	<b>Gunter/NRC</b>
<b>12:00 N</b>	<b>Action Item Status</b>	<b>DOE/NRC</b>
<b>12:15 PM</b>	<b>Closing Remarks</b>	<b>ALL</b>
<b>12:30 PM</b>	<b>Adjourn</b>	

Enclosure 2

ATTENDANCE LIST  
 NRC/DOE QUARTERLY MANAGEMENT MEETING  
 NRC HEADQUARTERS  
 October 17, 2002

NAME	ORGANIZATION	TELEPHONE
TED CARTER	NRC - HQ	301-415-6684
Steve Tetresult	Las Vegas Review-Journal	702-783-1768
Chris Eisberg	DOE - RW/52	202-586-8869
Steve Gomborg	DOE/RW-52	202-586-6497
Nick DiNunzio	DOE I	202-586-8953
Larry Saraka	BSC	202-488-6745
JACK SORENSEN	NRC	301-415-6804
LARRY CAMPBELL	NRC	301 415-5000
MARGARET FERRELL	NEA	301-415-7358
King Stabile	NRC	301-415-7445
THOMAS MATULA	NRC	301-415-6700
Bill DAM	NRC	301-415-6710
Tim McCartin	NRC	301-415-7285
Yan Chen	NRC	301-415-5615
Melanie Wong	NRC	301-415-6262
METZI YOUNG	NRC - OGC	- 415-1503
Andy Campbell	NRC	415-6897
Mike Lee	ACNW	301/415-6887
Daniel Rom	NRC	301-415-6704

**ATTENDANCE LIST**  
**DOE/NRC Quarterly Management Meeting**  
**Las Vegas, NV**  
**October 17, 2002**

Name	Organization	Telephone
Pamela Dahl	BSC Projects	295-0407
Joe Ziegler	DOE	794-5567
ROBERT E. Sweeney	BSC	702-624-8032
Veronica Cornu II	MTS	702-794-1392
ROBERT WEMHERR	BSC	702-295-6172
Gene Runkle	DOE/HQ	202-586-6842
Margaret Chue	DOE/HQ	202-586-6842
Daniel Gil	DOE/MP	702-794-5578
Jim Youker	BSC	702-295-5497
Bob Bradburn	MTS	702-794-5424
Steve Frushman	NV NWDPO	775-687-3744
Judy Treichel	ANWTF	702-248-1127
GREGORY L. MORGAN	DOE	702-295-2694
STEPHEN J. CERIGNANO	BSC	702-295-3944
Rod McCullen	NEI	202-739-8082
ROBERT MURRAY	MTS/BAH	702-794-5366
Jim PEGUES	CITY OF LAS VEGAS	702-209-6862
RDW MURPHY	DOE/RW-3	702-794-5000
Judith Holzgrau		775-727-1119
Sally Denton	Public	775-727-6883
George Holstrom	DOE	702-794-1419

ATTENDANCE LIST  
DOE/NRC Quarterly Management Meeting  
Las Vegas, NV  
October 17, 2002

Name	Organization	Telephone
MYRLE RICE	<del>INTERTECH</del> LINCOLN County	702-263-6583
TIM GUNTER	DOE	702-794-1343
Janet Schlueter	NRC/HW	301-415-7264
Bill Redman	NRC	301-415-7000
Dennis Jambly	NRC	301-415-1578
Mal Maughan	Miner County	360-945-5610
John Kerster	EPRI	650-855-2069
ALI HAZHI	BSC/LAP	702-295-4019
SUSAN Lynch	State of Nevada	775-687-3744
George P. Parnell	BSC/LAP	702-295-3935
FRANK J. KRATZINGER	MTS	702-794-1369
DONALD T. KRISHA	BSC QA	702-295-6242
Don Beckman	BSC LAP	702-295-5348
Kristi Hodges	OQA/NQS	702-794-1464
ROBERT HASSON	OQA/NQS	702-794-5023
Micky McDonnell	BSC/LAP	702-295-4023
Jim Linkhart	NSNFP	702-295-0366
Bob Clark	DOE	702-794-5583
David Franklin	NNPP	702-295-3465
Russ Frey	BSC	702-295-5524
Jim Cross	BAA	256-457-9789





Enclosurè 3



U.S. Department of Energy  
Office of Civilian Radioactive Waste Management



# License Application Status

Presented to:

**DOE/NRC Quarterly Management Meeting**

Presented by:

**Joseph Ziegler**

**Acting Assistant Manager for Licensing and Regulatory Compliance**

**U.S. Department of Energy**

**Office of Repository Development**

**October 17, 2002**

**Las Vegas, Nevada**

# Outline

- **Yucca Mountain Project Status**
- **Key Technical Issue (KTI) Agreements**
- **NRC Guidance Documents**
- **Licensing Support Network (LSN)**
- **Preliminary Design**
- **Preclosure Safety Analysis (PSA)**
- **Total System Performance Assessment (TSPA)**
- **Summary**



# Yucca Mountain Project Status

- **DOE plans to submit a license application (LA) to Nuclear Regulatory Commission (NRC) in December 2004 that successfully meets NRC requirements**
  - Programmatic sections of the LA currently in development
  - Development of supporting technical products scheduled through 2004
- **Focus of technical work is on**
  - Engineering and design
  - Scientific activities
  - Performance assessment
  - Continued testing and performance confirmation



# Key Technical Issue Agreements

- **DOE has adopted a risk-informed, performance-based (RIPB) approach to satisfying KTI agreements**
  - **Sensitivity and risk-prioritization studies will be used to support RIPB completion of some agreements**
    - ◆ **Latest Risk Prioritization Report sent to NRC September 13, 2002**
  - **DOE is evaluating schedule for responses to KTI agreements in an effort to accelerate completion of some agreements from FY 2004 and FY 2005 into FY 2003**
- **DOE's analysis and compliance arguments for licensing will be documented in the LA with updated and qualified models, software, and data**



# NRC Guidance Documents

- **DOE provided comments on the Yucca Mountain Review Plan (YMRP) (NUREG-1804, Draft Revision 2) on August 12, 2002**
  - DOE concerns with approach and content of draft YMRP discussed briefly at July 31, 2002 management meeting
  - DOE urges NRC to issue final YMRP as soon as possible
- **DOE is reviewing the Integrated Issue Resolution Status Report (NUREG-1762, Revision 0)**



# Licensing Support Network

- **Mark Van der Puy assigned as LSN Manager**
- **DOE successfully prepared approximately 400 documents (about 80,000 pages) for the LSN**
  - Documents currently located on server without external access
- **LSN Advisory Review Panel met September 18-19, 2002**
- **Technical exchange on electronic submission of information scheduled for December 10-11, 2002**
- **DOE is finalizing its comments on NRC rule for electronic submission of information**



# Preliminary Design for License Application

- **Preliminary design at LA submittal will emphasize systems important to safety and waste isolation**
  - Design will reflect a refinement of the flexible design concept for Site Recommendation and the Environmental Impact Statement (EIS)
  - LA and supporting documents will include concept of operations and appropriate level of detail to provide basis for NRC safety review for construction authorization



# Preliminary Design for License Application

(Continued)

- **Progress toward completion of preliminary design will be tracked through interim design reviews**
  - Final decisions on LA design have not been made
  - A procedure is in place to ensure that any necessary impact analyses are prepared
- **A technical exchange is scheduled for November 5-6, 2002 to discuss LA products and modular design developments**



# Preclosure Safety Analysis

- **The PSA will be synchronized and iterate with development of the preliminary design to achieve preclosure performance objectives**
  - Provides mechanism to integrate design concepts and evaluate performance



# Total System Performance Assessment

- **TSPA-LA will support licensing compliance analyses**
  - Evaluate numerical performance objectives
  - Demonstrate capability of multiple barriers
- **Documentation milestones include**
  - TSPA-LA Methods and Approach Document (October 2002)
    - ♦ DOE will submit to NRC in October 2002 to complete TSPA.1.01
  - Process Model and Abstraction Analysis and Modeling Reports (June 2003)
  - Features, Events, and Processes Database for License Application (October 2003)
  - TSPA-LA Model Analysis and Modeling Report (December 2003)
  - TSPA-LA Analysis Report (May 2004)



# Summary

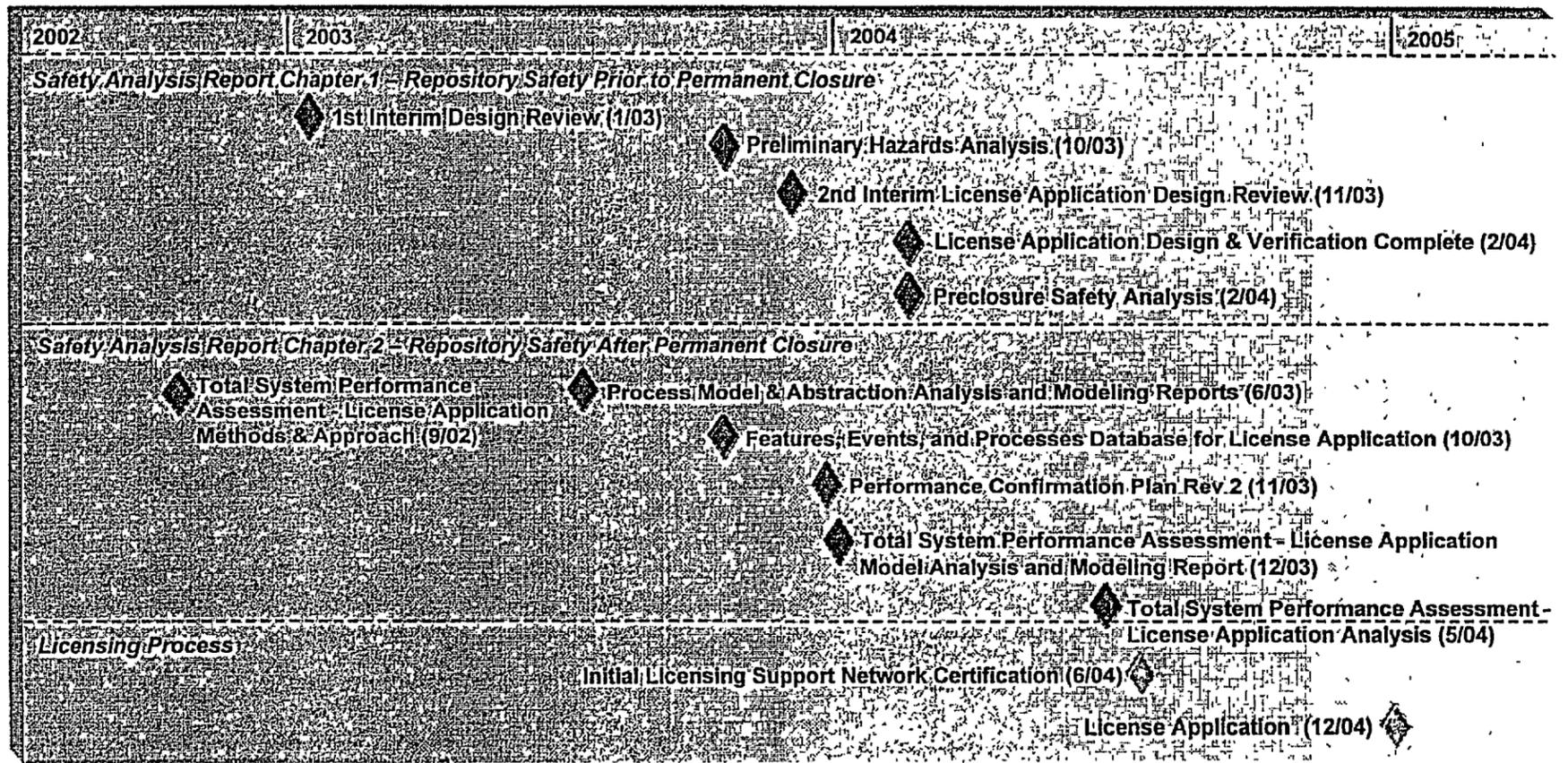
- **DOE has developed plans and schedules to submit a LA to NRC in December 2004**
  - **Progress toward completion of the preliminary design will be tracked through interim design reviews**
  - **Preclosure Safety Analysis will be developed iteratively with design**
  - **Total System Performance Assessment will emphasize enhancing confidence and adequately representing uncertainty**
  - **Continuing science studies, testing, and performance confirmation will be managed in an integrated manner**



# Backup



# Pre-Submittal Technical Products Schedule



Enclosure 4



U.S. Department of Energy  
Office of Civilian Radioactive Waste Management

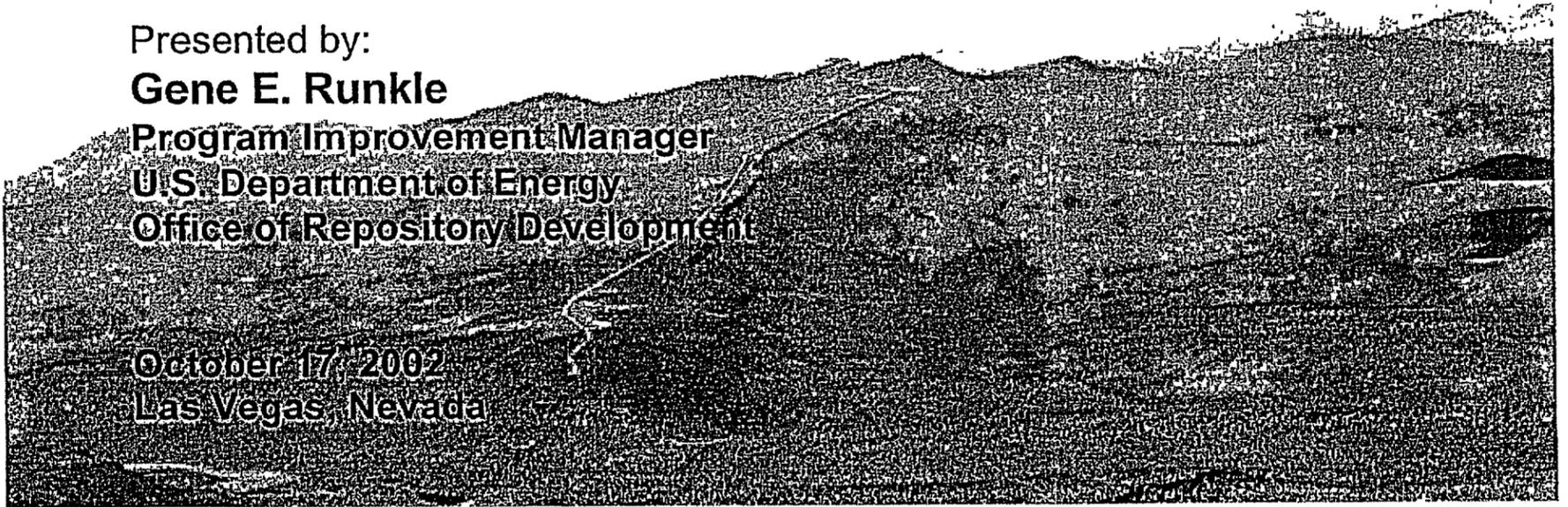


# Management Improvement Initiatives Implementation

Presented to:  
**DOE/NRC Quarterly Management Meeting**

Presented by:  
**Gene E. Runkle**  
Program Improvement Manager  
U.S. Department of Energy  
Office of Repository Development

October 17, 2002  
Las Vegas, Nevada



# Outline

- **Five Key Areas for Improvement**
- **Overview of Implementation Status**
  - Safety Conscious Work Environment
  - Employee Concerns Programs
- **Effectiveness Indicators**
- **Closure and Verification Process**
- **Internal Communication and Orientation**
- **Conclusions**



# Five Key Areas for Improvement

- **Project Roles, Responsibilities, Authority, & Accountability (R2A2)**
- **Quality Assurance Programs & Processes**
- **Project Procedures**
- **Corrective Action Program**
- **Safety-Conscious Work Environment**



# Overview of Implementation Status

- **DOE and BSC are implementing the Management Improvement Initiatives**
  - Program Manual Phase 2 Letter Report issued
  - Communication Plan and Management Alignment Plan issued
- **Completion of Action Statements on schedule in accordance with implementation plans**
  - Status of two BSC Corrective Action Reports presented previously in Quarterly QA Meeting
  - Modified schedule for software procedure implementation
- **100% managers and supervisors received Safety Conscious Work Environment training**
  - Internal training for all staff in process

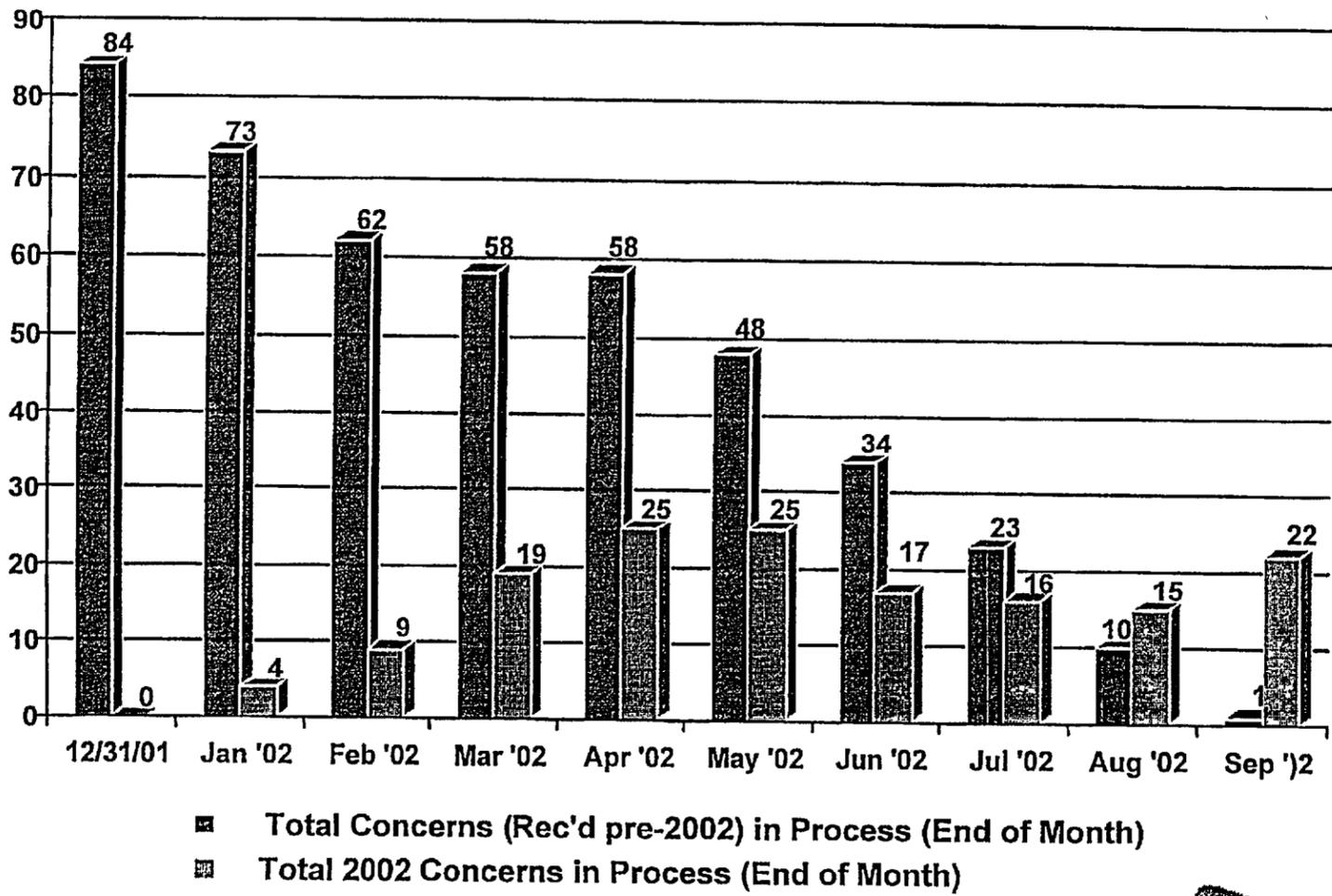


# Overview of Implementation Status

(continued)

- **OCRWM Employee Concerns Programs Status:**
  - Pre-2002 concerns backlog cleared
  - Currently 22 2002 concerns being investigated
- **BSC Employee Concerns Program in place:**
  - Policies and procedures created and communicated
  - Currently 8 concerns being investigated

# OCRWM Concerns Program September 2002 Performance Indicators



# Enhanced Effectiveness Indicator Development

- Initial NRC feedback on MII suggested need to improve effectiveness indicators
- Established a joint DOE and BSC Team
- Developed indicator criteria
- Many indicators encourage self-identification
- Assessed issue closure effectiveness
- Indicators should identify important issues
- Compared indicators to commercial nuclear industry indicators



# Indicator Criteria

- **Combined indicators must measure effectiveness, not just activities**
- **Achievable MII closure goal must be established**
- **Interim goals established when incremental improvement was necessary**
- **Indicators must be usable by Management**
- **Indicators should use information that is readily available**



# Cornerstone Effective Quality Assurance Organization

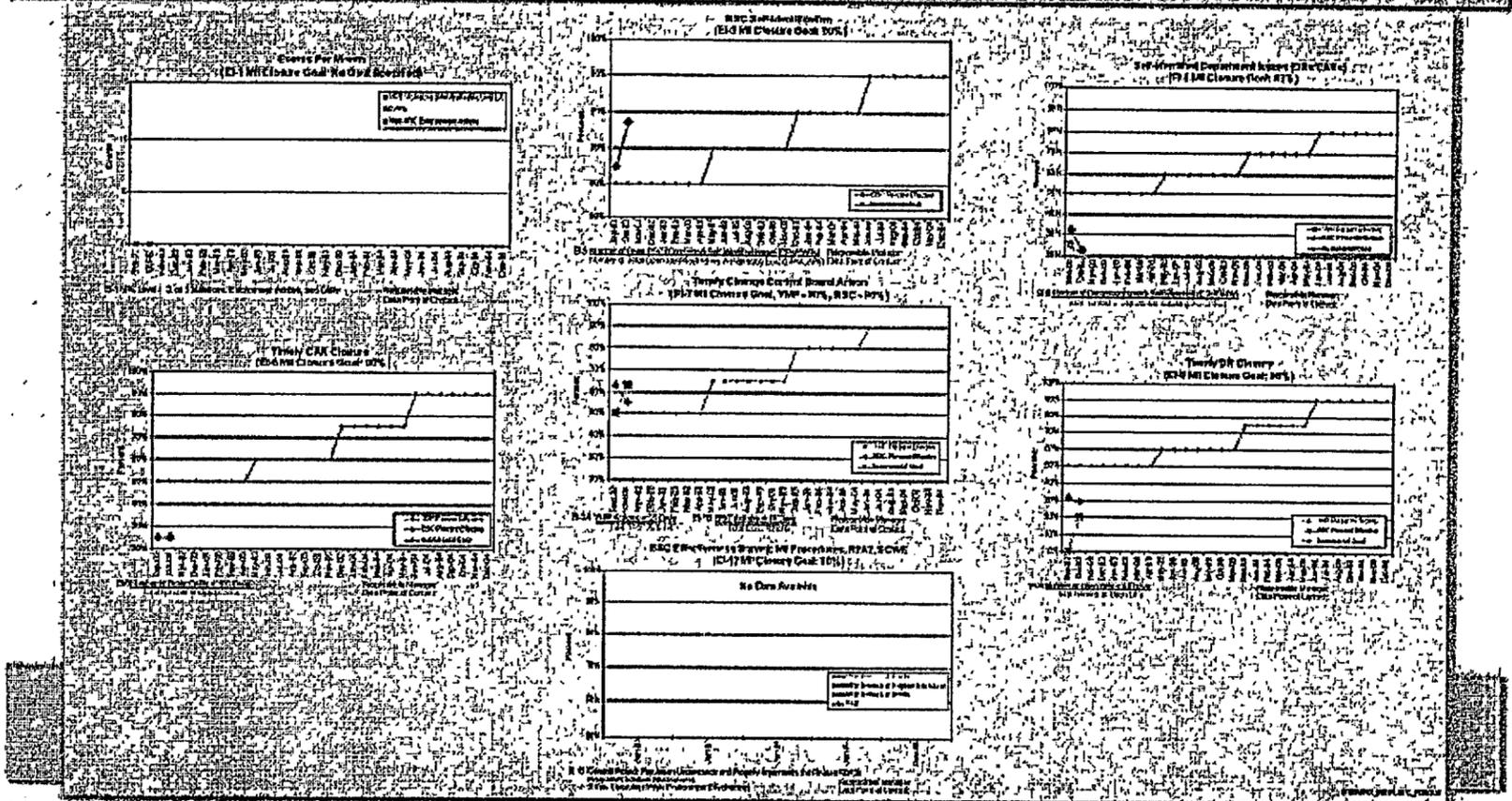
- **Self-identification of issues**
- **Resolution of issues by the responsible line organization**
- **Actions must be taken before significant problems develop**
- **Many indicators structured to encourage self-identification**



# Roles, Responsibilities, Authorities, and Accountability (R2A2)

Elm 3, 5, 6, 7, 9, 12

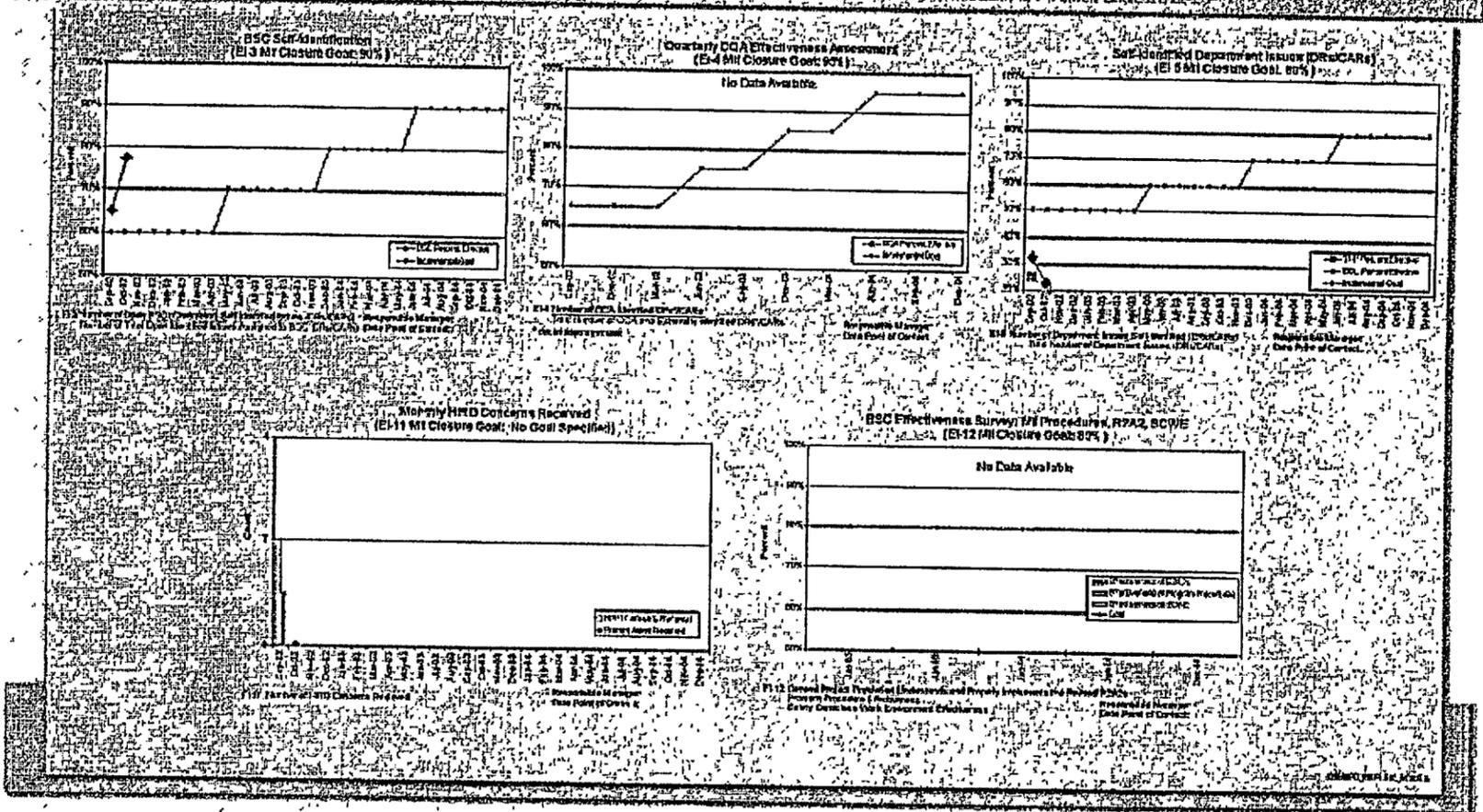
A high-quality program with clear R2A2s will efficiently and effectively resolve construction issues. This means the organization will identify and resolve issues before they become major issues.



# Safety Conscious Work Environment (SCWE)

El-3, 4, 5, 11, 12

It is important to provide an environment that encourages the work force to self-identify problems and for those problems to be resolved by measuring the employee's willingness to raise concerns. OCGM Management's primary focus of this program is to actively address issues.

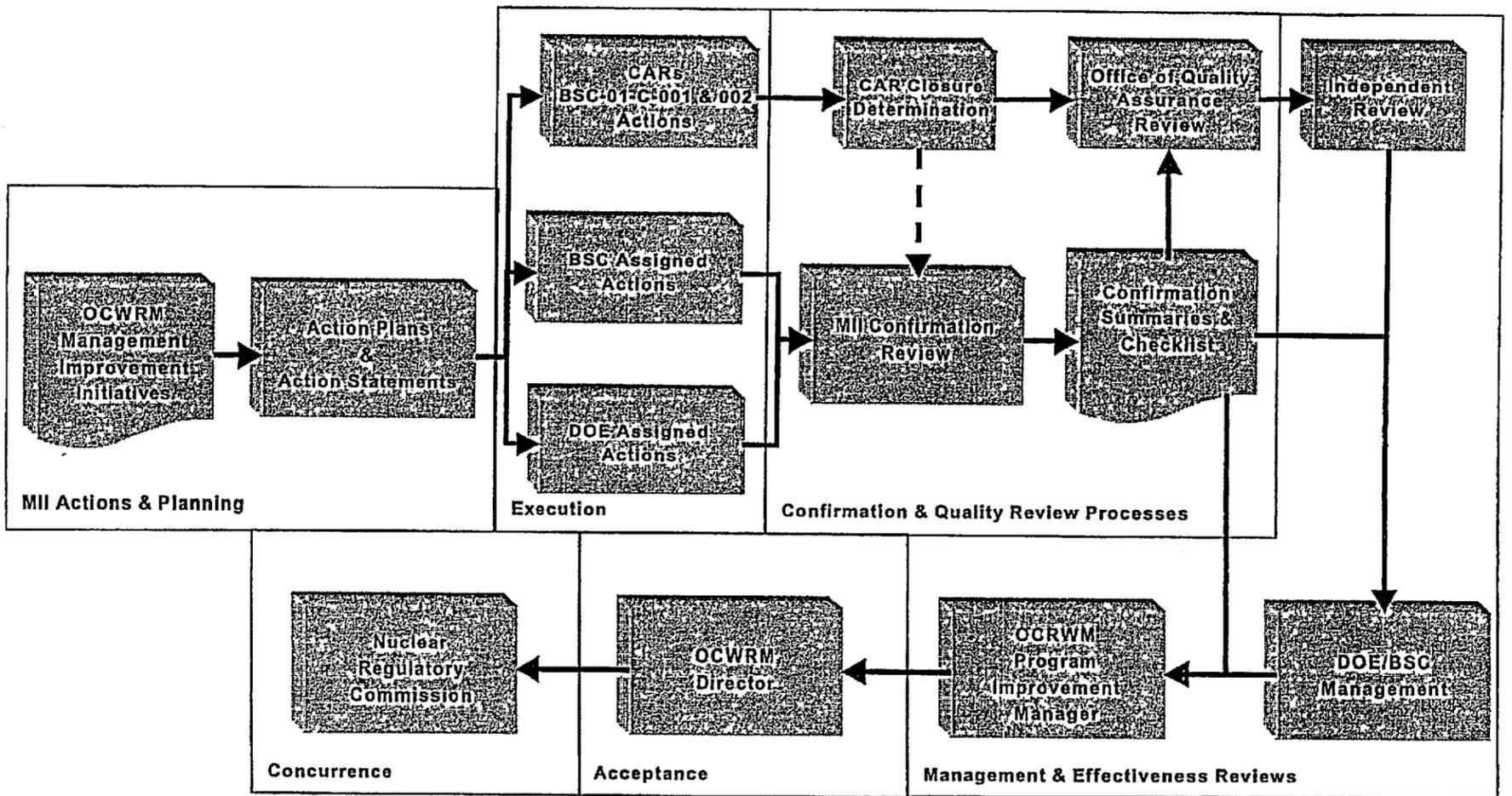


# Closure and Verification Team

- **Confirmation Team to assess completion of Action Statements in MII Section 5 and Appendices A and B**
- **Team members coordinate with Responsible Managers and designees and conduct independent reviews of supporting documentation**
  - Team does not perform QA functions
  - Effectiveness determinations will be made separately by management
- **Confirmation reviews will support development of evidence to substantiate closure to external parties, including NRC**
- **MII Confirmation Review Process was formally issued on September 12, 2002**



# Closure and Confirmation Process



# Conclusions

- **OCRWM and BSC management are taking this process seriously and Action Statements on schedule in accordance with implementation plans**
- **Current implementation documentation includes**
  - **Program Manual Phase 2 Letter Report**
  - **Communication Plan and Management Alignment Plan**
- **Enhanced effectiveness indicators developed**
- **Closure and verification process in place**



Enclosure 5



QA: N/A

*Office of Civilian Radioactive Waste Management*

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***MANAGEMENT IMPROVEMENT INITIATIVES  
CONFIRMATION REVIEW PROCESS***

*Revision 00*

---

*September 2002*

*U.S. Department of Energy  
Office of Civilian Radioactive Waste Management  
Washington, D.C.*

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#### **DISCLAIMER**

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OCRWM Program Improvement Manager  
Office of Civilian Radioactive Waste Management

9/12/02  
Date

## CHANGE HISTORY

<u>Revision Number</u>	<u>Interim Change No.</u>	<u>Effective Date</u>	<u>Description of Change</u>
0	0	09/12/2002	Initial issue

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## ACRONYMS

BSC	Bechtel SAIC Company, LLC
CAR	Corrective Action Report
CT	Confirmation Team
DOE	U.S. Department of Energy
HQ	Headquarters
MII	Management Improvement Initiatives
NRC	U.S. Nuclear Regulatory Commission
OCRWM	Office of Civilian Radioactive Waste Management
OPIM	Office of Civilian Radioactive Waste Management Program Improvement Manager
OQA	Office of Quality Assurance
QA	Quality Assurance
QARD	Quality Assurance Requirements and Description
R2A2	Roles, Responsibilities, Authority, and Accountability
SCWE	Safety-Conscious Work Environment
YMP	Yucca Mountain Site Characterization Project

## 1. INTRODUCTION

On July 19, 2002, the Director of the Office of Civilian Radioactive Waste Management (OCRWM) issued *Management Improvement Initiatives* (MII) (DOE 2002a). The MII was developed to address weaknesses in implementation of OCRWM quality assurance (QA) requirements and establish a foundation for continuous improvement. The ultimate goal of the MII is to ensure Yucca Mountain Site Characterization Program (YMP) work products consistently meet quality objectives and are fully defensible.

The MII identified the following areas in which improvements were needed:

- Program Roles, Responsibilities, Authority, and Accountability (R2A2)
- QA programs and processes
- Program procedures
- Corrective Action Program
- Safety-Conscious Work Environment (SCWE).

Within the MII, the U.S. Department of Energy (DOE) identified specific actions for implementation to achieve improvement in each of the areas listed above, as well as indicators to measure progress and effectiveness. There are 29 Action Statements associated with the five MII Action Plans. In addition, there are 12 Action Statements associated with Corrective Action Reports BSC-01-C-001 and BSC-01-C-002.

The MII Confirmation Team (CT) was established by OCRWM management direction to provide a mechanism to evaluate and confirm satisfactory completion of MII Action Plans. DOE management will use the results of the confirmation reviews along with other quality and independent reviews to determine overall Program and MII effectiveness.

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## 2. PURPOSE

The MII identified that a review and closure process would be instituted to ensure the action plans were implemented and effective in improving performance. As part of the MII closure process and prior to advising the U.S. Nuclear Regulatory Commission of the final closure results, reviews by the Office of Quality Assurance (OQA) and the CT were directed to assess completion of the MII Action Statements. This Confirmation Review Process (Process) is delineated herein.

Confirmations will be conducted by the CT for the Action Statements listed in Section 5 and Appendices A and B of the MII per the Process. The results of this Process will assist in demonstrating that implementation of MII items have been completed to the expectations of Bechtel SAIC Company, LLC (BSC) and DOE, with sufficient evidence to allow substantiation by other third parties. This Process will also assist senior DOE management in their activities associated with implementation of the Management Alignment Plan and the Communication Plan that assists in communicating the management approach and expectations to both federal and contractor employees.

**NOTE:** This Process and the CT activities are in addition to those required actions of OQA. The confirmation is not intended to be a surrogate or replacement for duties/responsibilities required to plan and execute "the work" governed by Project plans and procedures.

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### 3. DEFINITIONS

The definitions contained in the *Quality Assurance Requirements and Description* (DOE 2002b) apply to this Process. Additional terms are defined below.

- *Action Plan Responsible Manager*—The DOE person assigned responsibility for completion of the Action Plans described in the MII.
- *Action Statement Responsible Manager*—The DOE and BSC person(s) assigned responsibility for completion of the Action Statements described in the MII.
- *BSC Management Sponsors*—The BSC person assigned responsibility for completion of the Action Plans described in the MII. They are Action Plan Responsible Manager counterparts.

*Confirmatory Review*—A review of objective evidence to confirm the adequacy and quality for completion of MII actions.

*Corroborating Information*—Information that is used to support or substantiate other information.

*MII Confirmation*—The act of reviewing and validating, or otherwise determining and documenting whether MII action items, and related processes, services, or documents conform to specified requirements or commitments of the MII.

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#### 4. SCOPE

This Process has been prepared to assist in planning and documenting the completion of the commitments contained in the MII. The Process covers the duties, roles, and responsibilities of the MII CT, as well as identifying those specific actions essential for the CT and others to implement the MII Process. Specifically, the scope of this Process covers the confirmation of the 29 Action Statements listed in Section 5 of the MII and the remedial and corrective actions noted in Appendices A and B of the MII. The CT will also support senior DOE and BSC management requests for information and progress related to the MII.

Figure 4-1 illustrates the flow of the MII confirmation process and the relationship of this Process with respect to the overall MII effort. This Process is not intended to provide a determination of MII effectiveness. Evaluation of effectiveness will be addressed separately, as part of the quality and management reviews.

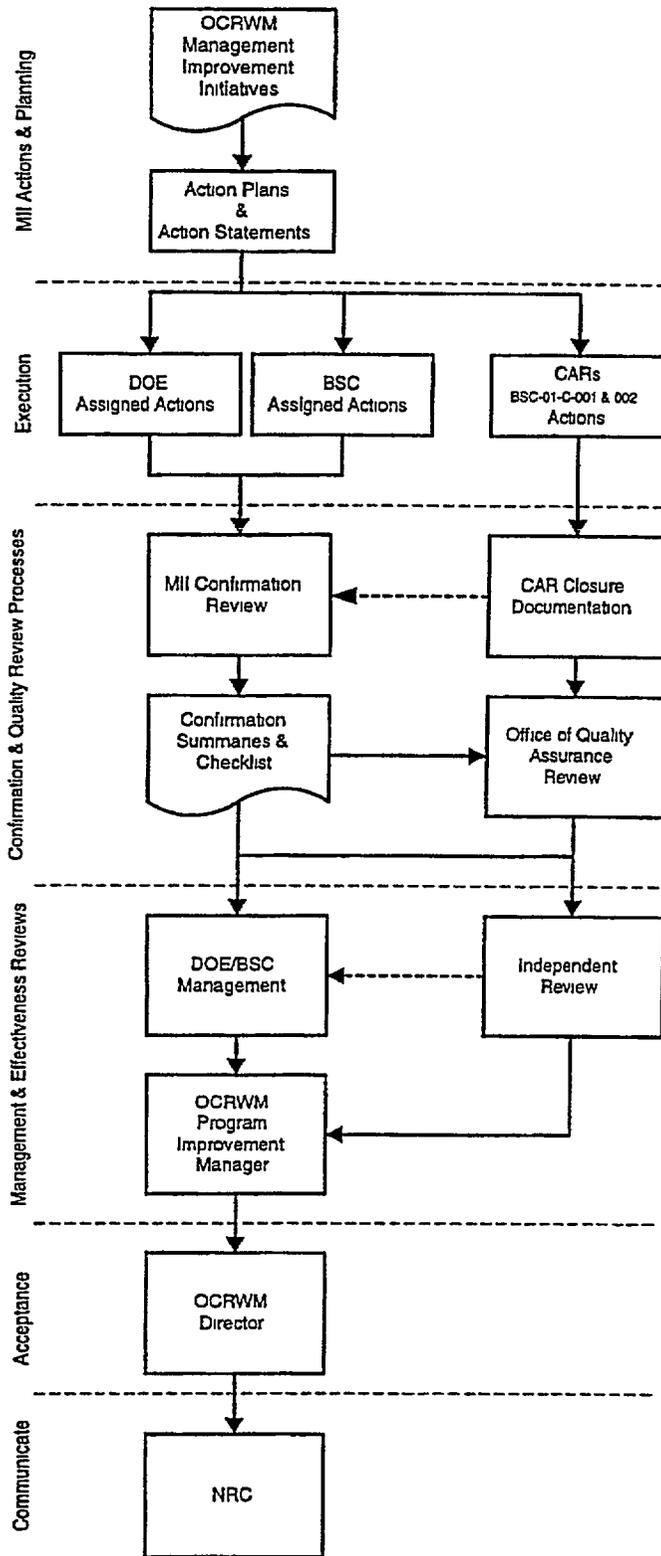


Figure 4-1. Management Improvement Initiatives Process Summary

## 5. ROLES AND RESPONSIBILITIES

### 5.1. DEPARTMENT OF ENERGY

- 5.1.1 The Director, OCRWM, is responsible for the QA program and the effective execution of the MII, including oversight and authority on matters pertaining to the performance commitments and the MII confirmation review process.
- 5.1.2 The OCRWM Program Improvement Manager (OPIM) is responsible for administering and overseeing the MII on behalf of the Director, including the MII confirmation review process.
- 5.1.3 The YMP Manager (and Deputy) is responsible for meeting quality and performance objectives related to YMP, including implementation of assigned MII actions and supporting the OPIM.
- 5.1.4 The MII designated Action Plan Responsible Managers are responsible and accountable for the planning and execution of assigned MII actions within DOE to meet effectiveness indicators and performance. DOE Action Plan Responsible Managers are:
- Roles, Responsibilities, Authority, and Accountability Action Plan–M. Chu
  - Quality Assurance Program and Processes Action Plan–G. Runkle
  - Program Procedures Action Plan–D. Horton
  - Corrective Action Program Plan–M. Chu/R. Dyer
  - Safety-Conscious Work Environment Action Plan–J. Ziegler.
- 5.1.5 DOE Action Statement Responsible Managers are assigned responsibility for the accomplishment of the various Action Statements that comprise the overarching Action Plans. These Managers will be responsible for the planning, execution, documentation, and status reporting of their respective Action Statements, including any assigned subtask actions required to complete the Action Statement.
- 5.1.6 The OQA is responsible for providing guidance and direction to the line organization on QA matters, and for the overview of the MII.
- ### 5.2 BECHTEL SAIC COMPANY, LLC
- 5.2.1 General Manager (and Deputy General Manager) is responsible for BSC activities covered under the DOE contract, as well as effective implementation of MII Action Statement tasks related to BSC's scope of work.
- 5.2.2 Manager of Projects is responsible for effective implementation of MII Action Statements related to BSC Projects and those specifically assigned to the Manager of Projects.
- 5.2.3 BSC Management Sponsors are the counterparts to DOE Action Plan Responsible Managers. They support development and implementation of Action Plans, including responsibility for

planning, monitoring progress, and facilitating management actions to eliminate barriers to success. BSC Management Sponsors and their respective Action Plan Assignments are:

- Roles, Responsibilities, Authority, and Accountability Action Plan–K. Hess
- Quality Assurance Program and Processes Action Plan–K. Hess
- Program Procedures Action Plan–N. Williams
- Corrective Action Program Plan–D. Pearman
- Safety-Conscious Work Environment Action Plan–D. Pearman.

5.2.4 BSC Action Statement Responsible Managers are assigned responsibility for the accomplishment of the various Action Statements that comprise the overarching Action Plans. These managers will be responsible for the planning, execution, documentation, and status reporting of their respective Action Statements, including any assigned subtask actions required to complete the Action Statement.

### 5.3 CONFIRMATION TEAM

MII CT representatives are responsible for the preparation and execution of this Process, with the primary mission being confirmation and documentation of DOE and BSC completion of MII actions.

## **6. MII CONFIRMATION REVIEW PROCESS**

The MII CT will assess completion of the MII action items, prepare objective evidence of their evaluation, and provide input to management on the progress to assist the DOE and BSC senior management team's determination of the effectiveness of the improvement initiatives.

### **6.1 CONFIRMATION PLANNING, SCHEDULING AND COORDINATION**

**6.1.1** The CT will prepare a schedule for each MII Action Statement item consistent with the commitment dates provided in the MII.

**6.1.2** Within the CT, Action Statements will be assigned to team members for confirmation, and ensure ample review time and resources are available to perform the necessary confirmation functions.

**6.1.3** The CT will coordinate its overall schedule for MII confirmations such that it is integrated with specific Action Statement execution schedules prepared by DOE and BSC.

**6.1.4** When schedules are in conflict, the CT shall contact the Responsible Action Plan Manager(s) to work out schedule differences and arrangements.

**6.1.5** When it is observed that work has not been planned to accomplish the necessary actions (Fiscal Year 2002 or in FY 2003), the CT will inform the appropriate DOE or BSC MII management for planning consideration.

### **6.2 CONFIRMATION REVIEW AND ACCEPTANCE REQUIREMENTS**

**6.2.1** Documentation and supporting confirmation and acceptability reviews for MII action items shall be made available by the assigned Action Statement Responsible Manager upon completion of the action item.

**6.2.2** Notification by the Action Statement Responsible Manager shall be made, via e-mail or memoranda, to the OPIM with copy to the CT when the action is ready for the confirmation process. An Action Statement will not be considered confirmed until all sustaining actions and supporting documentation reviews are completed.

**6.2.3** The CT evaluator shall establish confirmation expectations and checklists for each assigned Action Statement based on the MII and expected results.

**6.2.4** When insufficient information is supplied, such that a confirmation cannot be completed satisfactorily, it shall be communicated by the CT to the Action Statement Responsible Manager as soon as possible. It will then be documented, including identification of specific issues and a schedule as to when the remaining information is required to meet the confirmation schedule.

**6.2.5** Scope and schedule changes that extend completion of MII implementation are to be approved or authorized by the OPIM or assigned designee.

6.2.6 Confirmation Summary Sheets shall be controlled and updated as the confirmation proceeds by the CT. Updates shall be made using revision and change control standards (revision bars, revision numbers, dates).

### **6.3 DOCUMENTATION OF CONFIRMATION REVIEWS**

6.3.1 Records shall be assembled using the information reviewed and the confirmatory evaluations documented to demonstrate completeness of the MII Action Statements.

6.3.2 MII Action Statements and corrective action items shall be documented using, as a minimum, Confirmation Summary Sheets accompanied by all supporting documents and the Confirmation Checklist.

6.3.3 Information on the Confirmation Checklist will include, as a minimum, that given on the sample MII Confirmation Checklist in Appendix D of this document.

6.3.4 Objective evidence obtained for review shall be judged by the CT to be considered satisfactory, and any related materials provided in a "Green File" maintained by the CT.

### **6.4 CONFIRMATION ISSUE RESOLUTION**

6.4.1 Resolution shall be worked between the CT and the Action Statement Responsible Manager(s) to address any identified issues.

6.4.2 Resolutions shall be documented to the extent necessary to ensure a clear record is established as a basis for decision or escalated resolution.

6.4.3 Issues that cannot be resolved between the CT and the Action Statement Responsible Manager shall be brought to the attention of the Action Plan Responsible Manager or other management, as appropriate, as soon as possible for resolution.

6.4.4 Where issue resolution may be governed by other procedures, those procedures shall be adhered to accordingly.

### **6.5 CONFIRMATION PERFORMANCE AND MANAGEMENT REPORTING**

6.5.1 The CT will brief the OPIM on confirmation status and performance issues, as requested, and any issues warranting management attention will be noted.

6.5.2 The MII Confirmation Summary Schedule will be updated and provided to appropriate management weekly.

6.5.3 A monthly report will be prepared for the OPIM to include the following:

- Identification of potential issues affecting MII commitments and schedules
- Highlights of CT activities completed during the last month
- CT activities planned for the next month
- Ninety day look-ahead. (issues and actions on the horizon)

- Confirmation performance indicators, for example:
  - Items confirmed (number and percent of total)
  - Items completed awaiting confirmation (number and percent to be confirmed)
  - Items needing additional information (number and percent of total)
  - Items not submitted on time (days late)
  - Items rejected or not meeting minimum confirmation expectations (number and percent of total)
  - Percent Complete
- General confirmation trends.

## 6.6. COMMUNICATIONS

Communications relating to this plan will be made between the respective CT members, the DOE and BSC senior management team, and assigned Action Statement Responsible Managers tasked to perform the specific subactions of the MII Action Plans.

## 6.7 SELF-ASSESSMENTS

Self-Assessments may be performed as necessary or as directed. During the course of the MII confirmation activities, it is contemplated that at least one self-assessment be performed on the Process in accordance with AP-2.20Q, *Self-Assessments*.

## 6.8 CHANGE CONTROL

6.8.1 Change control of this Process will be managed and maintained by the CT.

6.8.2 This Process may be modified by management directive, as Program changes require.

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## 7. RECORDS

If not already submitted, information and records collected and used by the CT to demonstrate adequate completion of specific MII Action Plans shall be submitted to the Records Processing Center in accordance with AP-17.1Q, *Record Source Responsibilities for Inclusionary Records*. This also may include non-quality records, such as MII Confirmation Checklists, Confirmation Summaries, and other supporting documents.

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## 8. REFERENCES

DOE (U.S. Department of Energy) 2002a. *Management Improvement Initiatives*. PLN-CRW-AD-000009. Washington, D.C.: U.S. Department of Energy, Office of Civilian Radioactive Waste Management. ACC: MOL.20020729.0388

DOE 2002b. *Quality Assurance Requirements and Description*. DOE/RW-0333P, Rev. 11. Washington, D.C.: U.S. Department of Energy, Office of Civilian Radioactive Waste Management. ACC: MOL.20020506.0915.

AP-2.20Q, Rev. 1. *Self-Assessments*. Washington, D.C.: U.S. Department of Energy, Office of Civilian Radioactive Waste Management.

AP-17.1Q, Rev. 2, ICN 3. *Record Source Responsibilities for Inclusionary Records*. Washington, D.C.: U.S. Department of Energy, Office of Civilian Radioactive Waste Management.

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**APPENDIX A**  
**MII CONFIRMATION ACTION SHEETS**

**MII Action Activities**  
**Table 1: Roles, Responsibilities, Authority, and Accountability Action Plan**

Action Plan Responsible Manager: Margaret Chu  
 Action Statement Responsible Manager: \_\_\_\_\_

<b>Action Statement 1:</b> DOE will issue a policy statement identifying the expectations of OCRWM management.	<b>Due Date</b> 08/30/02
<b>Action Plan:</b>	<b>Due Date:</b>
<b>Action Item Schedule:</b>	<b>Due Date:</b>

**Execution Task Description:**

A-1

**MII Action Activities**  
**Table 1: Roles, Responsibilities, Authority, and Accountability Action Plan**

Action Plan Responsible Manager: Margaret Chu  
 Action Statement Responsible Manager: \_\_\_\_\_

<b>Action Statement 2:</b> DOE will clarify R2A2 within the OCRWM organization to ensure commensurate authority accompanies assigned responsibilities	<b>Due Date</b> 09/30/02
<b>Action Plan:</b>	<b>Due Date:</b>
<b>Action Item Schedule:</b>	<b>Due Date:</b>

**Execution Task Description:**

A-2

MII Action Activities

Table 1: Roles, Responsibilities, Authority, and Accountability Action Plan

Action Plan Responsible Manager: Gene Runkle

Action Statement Responsible Manager: \_\_\_\_\_

<b>Action Statement 3:</b> DOE staff will be oriented through various communications methods to the realigned organization and the associated R2A2. This realignment will allow DOE to manage overall Program performance and hold BSC accountable for performance (i.e., quality, schedule, and cost).	<b>Due Date</b> 10/31/02
<b>Action Plan:</b>	<b>Due Date:</b>
<b>Action Item Schedule:</b>	<b>Due Date:</b>

**Execution Task Description:**

A-3

MII Action Activities

Table 1: Roles, Responsibilities, Authority, and Accountability Action Plan

Action Plan Responsible Manager: Don Pearman

Action Statement Responsible Manager: \_\_\_\_\_

Action Statement 4: BSC staff will be oriented to the realigned organization and the associated R2A2.

Due Date  
10/31/02

Action Plan:

Due Date:

Action Item Schedule:

Due Date:

Execution Task Description:

A-4

MII Action Activities

Table 1: Roles, Responsibilities, Authority, and Accountability Action Plan

Action Plan Responsible Manager: Gene Runkle

Action Statement Responsible Manager: \_\_\_\_\_

**Action Statement 5:** DOE will issue a *Program Manual* that provides the implementing requirements that will guide the organization realignment to support the licensing process.

**Due Date**  
10/31/02

**Action Plan:**

**Due Date:**

**Action Item Schedule:**

**Due Date:**

**Execution Task Description:**

A-5

MII Action Activities

Table 1: Roles, Responsibilities, Authority, and Accountability Action Plan

Action Plan Responsible Manager: Gene Runkle  
Action Statement Responsible Manager: \_\_\_\_\_

<b>Action Statement 6:</b> DOE annual performance appraisals will be revised to reflect manager performance criteria relative to the appropriate R2A2.	Due Date 12/31/02
<b>Action Plan:</b>	Due Date:
<b>Action Item Schedule:</b>	Due Date:
<b>Execution Task Description:</b>	

A-6

MII Action Activities

Table 2: Quality Assurance Programs and Processes Action Plan

Action Plan Responsible Manager: Margaret Chu

Action Statement Responsible Manager: \_\_\_\_\_

**Action Statement 1:** DOE will issue a policy statement identifying the expectations of OCRWM management, including line management's ownership of the QA program as the principal means of achieving quality. (This action will be completed in conjunction with R2A2 actions; see Section 5.1).

Due Date  
08/30/02

**Action Plan:**

Due Date:

**Action Item Schedule:**

Due Date:

**Execution Task Description:**

A-7

MII Action Activities

Table 2: Quality Assurance Programs and Processes Action Plan

Action Plan Responsible Manager: Margaret Chu

Action Statement Responsible Manager: \_\_\_\_\_

**Action Statement 2:** DOE will clarify R2A2 within the OCRWM organization, including the R2A2 for DOE and BSC QA. (This action will be completed in conjunction with R2A2 actions; see Section 5.1.)

Due Date  
09/30/02

**Action Plan:**

Due Date:

**Action Item Schedule:**

Due Date:

**Execution Task Description:**

A-8

MII Action Activities

Table 2: Quality Assurance Programs and Processes Action Plan

Action Plan Responsible Manager: Gene Runkle

Action Statement Responsible Manager: \_\_\_\_\_

**Action Statement 3:** DOE and BSC respective staffs will be oriented to the realigned DOE and BSC QA R2A2s through various communication methods. (This action will be completed in conjunction with R2A2 actions, see Section 5.1.)

Due Date  
10/31/02

**Action Plan:**

Due Date:

**Action Item Schedule:**

Due Date:

**Execution Task Description:**

69

MII Action Activities

Table 2: Quality Assurance Programs and Processes Action Plan

Action Plan Responsible Manager: Don Pearman

Action Statement Responsible Manager: \_\_\_\_\_

Action Statement 3B: DOE and BSC respective staffs will be oriented to the realigned DOE and BSC QA R2A2s through various communication methods. (This action will be completed in conjunction with R2A2 actions, see Section 5.1.)

Due Date  
10/31/02

Action Plan:

Due Date:

Action Item Schedule:

Due Date:

Execution Task Description:

A-10

MII Action Activities

Table 2: Quality Assurance Programs and Processes Action Plan

Action Plan Responsible Manager: Gene Runkle

Action Statement Responsible Manager: \_\_\_\_\_

**Action Statement 4:** The QARD will be reviewed and revised as necessary to ensure that applicable requirements are identified, documented, and traceable to regulatory drivers. (Internal and external review cycle will follow.)

**Due Date**  
11/29/02

**Action Plan:**

**Due Date:**

**Action Item Schedule:**

**Due Date:**

**Execution Task Description:**

II-V  
A-11

MII Action Activities

Table 2: Quality Assurance Programs and Processes Action Plan

Action Plan Responsible Manager: Gene Runkle

Action Statement Responsible Manager: \_\_\_\_\_

**Action Statement 5:** DOE annual performance appraisals will be revised to include performance criteria that address line management's responsibility to implement the OCRWM QA program.

**Due Date**  
12/31/02

**Action Plan:**

**Due Date:**

**Action Item Schedule:**

**Due Date:**

**Execution Task Description:**

A-12

**MII Action Activities**  
**Table 3: Program Procedures Action Plan**

Action Plan Responsible Manager: Margaret Chu  
 Action Statement Responsible Manager: \_\_\_\_\_

<b>Action Statement 1:</b> DOE will clarify R2A2 within the OCRWM organization, including clear identification of the work scope and responsibilities for procedure development and implementation of each organization. (This action will be completed in conjunction with R2A2 actions; see Section 5.1.)	<b>Due Date</b> 09/30/02
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<b>Action Plan:</b>	<b>Due Date:</b>
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<b>Action Item Schedule:</b>	<b>Due Date:</b>
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<b>Execution Task Description:</b>
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A-13

MII Action Activities

Table 3: Program Procedures Action Plan

Action Plan Responsible Manager: Don Horton

Action Statement Responsible Manager: Catherine Hampton

Action Statement 2: DOE and BSC will review their respective procedure sets and define procedure hierarchies based on their work requirements.

Due Date  
10/31/02

Action Plan:

Action Item Schedule:

Due Date:

Execution Task Description:

A-14

MII Action Activities

Table 3: Program Procedures Action Plan

Action Plan Responsible Manager: Nancy Williams

Action Statement Responsible Manager: \_\_\_\_\_

**Action Statement 2B:** DOE and BSC will review their respective procedure sets and define procedure hierarchies based on their work requirements.

**Due Date**  
10/31/02

**Action Plan:**

**Due Date:**

**Action Item Schedule:**

**Due Date:**

**Execution Task Description:**

A-15

**MII Action Activities**  
**Table 3: Program Procedures Action Plan**

Action Plan Responsible Manager: Don Horton  
Action Statement Responsible Manager: Catherine Hampton

<b>Action Statement 3:</b> New or revised procedures will be issued in compliance with OCRWM requirements using a phased approach.	<b>Due Date</b> Starting 11/04/02
<b>Action Plan:</b>	<b>Due Date:</b>
<b>Action Item Schedule:</b>	<b>Due Date:</b>
<b>Execution Task Description:</b>	

**MII Action Activities**  
**Table 3: Program Procedures Action Plan**

Action Plan Responsible Manager: Nancy Williams  
Action Statement Responsible Manager: \_\_\_\_\_

<b>Action Statement 3B:</b> New or revised procedures will be issued in compliance with OCRWM requirements using a phased approach.	<b>Due Date</b> Starting 11/04/02
<b>Action Plan:</b>	<b>Due Date:</b>
<b>Action Item Schedule:</b>	<b>Due Date:</b>

**Execution Task Description:**

**MII Action Activities**  
**Table 3: Program Procedures Action Plan**

Action Plan Responsible Manager: Mark Van Der Puy  
 Action Statement Responsible Manager: Robert Clark

<b>Action Statement 4:</b> Personnel that will use the new or revised procedures will be trained prior to implementing the procedures.	<b>Due Date</b> Starting 11/04/02
<b>Action Plan:</b>	<b>Due Date:</b>
<b>Action Item Schedule:</b>	<b>Due Date:</b>
<b>Execution Task Description:</b>	

**MII Action Activities**  
**Table 3: Program Procedures Action Plan**

Action Plan Responsible Manager: Nancy Williams  
Action Statement Responsible Manager: \_\_\_\_\_

<b>Action Statement 4B:</b> Personnel that will use the new or revised procedures will be trained prior to implementing the procedures.	<b>Due Date</b> Starting 11/04/02
<b>Action Plan:</b>	<b>Due Date:</b>
<b>Action Item Schedule:</b>	<b>Due Date:</b>

**Execution Task Description:**

A-19

**MII Action Activities**  
**Table 4: Corrective Action Program Plan**

**Action Plan Responsible Manager:** Margaret Chu  
**Action Statement Responsible Manager:** \_\_\_\_\_

<b>Action Statement 1:</b> The Director of OQA will be assigned responsibility and held accountable for a single improved OCRWM Corrective Action Program.	<b>Due Date</b> 08/30/02
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<b>Action Plan:</b>	<b>Duc Date:</b>
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<b>Action Item Schedule:</b>	<b>Duc Date:</b>
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<b>Execution Task Description:</b>	
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**MII Action Activities**  
**Table 4: Corrective Action Program Plan**

**Action Plan Responsible Manager:** Don Horton

**Action Statement Responsible Manager:** Suzy Mellington

**Action Statement 2:** DOE will form a task team to establish the Program requirements and specifications for the Corrective Action Program.

**Due Date**  
09/30/02

**Action Plan:**

**Due Date:**

**Action Item Schedule:**

**Due Date:**

**Execution Task Description:**

**MII Action Activities**  
**Table 4: Corrective Action Program Plan**

**Action Plan Responsible Manager:** Don Pearman  
**Action Statement Responsible Manager:** \_\_\_\_\_

<b>Action Statement 3:</b> BSC will implement a single OCRWM Corrective Action Program consistent with nuclear industry practices, including tracking, trending, reporting, and closure verification processes.	<b>Due Date</b> 02/28/03
<b>Action Plan:</b>	<b>Due Date:</b>
<b>Action Item Schedule:</b>	<b>Due Date:</b>

**Execution Task Description:**

**MII Action Activities**  
**Table 4: Corrective Action Program Plan**

**Action Plan Responsible Manager:** Don Pearman  
**Action Statement Responsible Manager:** \_\_\_\_\_

<b>Action Statement 4:</b> BSC will define and implement a self-assessment program, a lessons learned program, and a method to identify and correct adverse conditions.	<b>Due Date</b> 03/31/03
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<b>Action Plan:</b>	<b>Due Date:</b>
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<b>Action Item Schedule:</b>	<b>Due Date:</b>
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<b>Execution Task Description:</b>	
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A-23

**MII Action Activities**  
**Table 5: Safety-Conscious Work Environment Action Plan**

**Action Plan Responsible Manager:** Margaret Chu

**Action Statement Responsible Manager:** \_\_\_\_\_

<p><b>Action Statement 1:</b> On April 30, 2002, the OCRWM Program Director and the YMP Project Manager issued a revised and expanded SCWE policy. This policy has been communicated to employees through meetings and project communiques. The YMP Project Manager and the BSC Deputy General Manager are designated as SCWE change champions.</p>	<p><b>Due Date</b> Completed 05/02</p>
<p><b>Action Plan:</b></p>	<p><b>Due Date:</b></p>
<p><b>Action Item Schedule:</b></p>	<p><b>Due Date:</b></p>

**Execution Task Description:**

A-24

**MII Action Activities**  
**Table 5: Safety-Conscious Work Environment Action Plan**

**Action Plan Responsible Manager:** Gene Runkle  
**Action Statement Responsible Manager:** \_\_\_\_\_

<b>Action Statement 2:</b> DOE will implement SCWE and employee concerns program performance metrics into BSC contract assessment.	<b>Due Date</b> Completed 07/02
<b>Action Plan:</b>	<b>Due Date:</b>
<b>Action Item Schedule:</b>	<b>Due Date:</b>
<b>Execution Task Description:</b>	

A-25

**MII Action Activities**  
**Table 5: Safety-Conscious Work Environment Action Plan**

**Action Plan Responsible Manager:** Gene Runkle  
**Action Statement Responsible Manager:** \_\_\_\_\_

<b>Action Statement 3:</b> DOE will modify the BSC contract and other DOE contracts to require the implementation of the Program SCWE policy requirements.	<b>Due Date</b> 08/30/02 - BSC 10/31/02 - Others
<b>Action Plan:</b>	<b>Due Date:</b>
<b>Action Item Schedule:</b>	<b>Due Date:</b>
<b>Execution Task Description:</b>	

**MII Action Activities**  
**Table 5: Safety-Conscious Work Environment Action Plan**

**Action Plan Responsible Manager:** Gene Runkle  
**Action Statement Responsible Manager:** \_\_\_\_\_

<b>Action Statement 4:</b> DOE will eliminate the backlog of open OCRWM employee concerns and shorten the life-cycle for addressing concerns.	<b>Due Date</b> 08/30/02
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<b>Action Plan:</b>	<b>Due Date:</b>
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<b>Action Item Schedule:</b>	<b>Due Date:</b>
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**Execution Task Description:**

A-27

**MII ACTION ACTIVITIES**

**Table 5: Safety-Conscious Work Environment Action Plan**

**Action Plan Responsible Manager:** Russ Dyer

**Action Statement Responsible Manager:** Catherine Hampton

**Action Statement 5:** DOE will establish a DOE policy and procedures regarding expectations to escalate issues in an expedient manner.

**Due Date**  
08/30/02

**Action Plan:**

**Due Date:**

**Action Item Schedule:**

**Due Date:**

**Execution Task Description:**

**MII Action Activities**  
**Table 5: Safety-Conscious Work Environment Action Plan**

**Action Plan Responsible Manager:** Don Peaman  
**Action Statement Responsible Manager:** \_\_\_\_\_

<b>Action Statement 6:</b> BSC will establish a BSC policy and procedures regarding expectations to escalate issues in an expedient manner.	<b>Due Date</b> 08/30/02
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<b>Action Plan:</b>	<b>Due Date:</b>
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<b>Action Item Schedule:</b>	<b>Due Date:</b>
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<b>Execution Task Description:</b>
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**MII Action Activities**  
**Table 5: Safety-Conscious Work Environment Action Plan**

**Action Plan Responsible Manager:** Mark Van Der Puy

**Action Statement Responsible Manager:** \_\_\_\_\_

**Action Statement 7:** DOE and BSC will develop and/or revise SCWE-related Program-wide employee and supervisor/manager training modules based upon nuclear industry practices.

**Due Date**  
08/30/02

**Action Plan:**

**Due Date:**

**Action Item Schedule:**

**Due Date:**

**Execution Task Description:**

A-30

**MII Action Activities**  
**Table 5: Safety-Conscious Work Environment Action Plan**

**Action Plan Responsible Manager:** Paul Turner

**Action Statement Responsible Manager:** \_\_\_\_\_

**Action Statement 7B:** DOE and BSC will develop and/or revise SCWE-related Program-wide employee and supervisor/manager training modules based upon nuclear industry practices.

**Due Date**  
08/30/02

**Action Plan:**

**Due Date:**

**Action Item Schedule:**

**Due Date:**

**Execution Task Description:**

A-31

**MII Action Activities**  
**Table 5: Safety-Conscious Work Environment Action Plan**

**Action Plan Responsible Manager:** Don Pearman

**Action Statement Responsible Manager:** \_\_\_\_\_

**Action Statement 8:** BSC will establish internal BSC mechanisms for reporting, investigating, and resolving employee concerns.

**Due Date**  
09/30/02

**Action Plan:**

**Due Date:**

**Action Item Schedule:**

**Due Date:**

**Execution Task Description:**

A-32

**MII Action Activities**  
**Table 5: Safety-Conscious Work Environment Action Plan**

**Action Plan Responsible Manager:** Mark Van Der Puy  
**Action Statement Responsible Manager:** \_\_\_\_\_

<b>Action Statement 9:</b> DOE and BSC will conduct employee and supervisor/manager SCWE training.	<b>Due Date</b> 12/31/02
<b>Action Plan:</b>	<b>Due Date:</b>
<b>Action Item Schedule:</b>	<b>Due Date:</b>
<b>Execution Task Description:</b>	

A-33

**MII Action Activities**  
**Table 5: Safety-Conscious Work Environment Action Plan**

**Action Plan Responsible Manager:** Paul Turner  
**Action Statement Responsible Manager:** \_\_\_\_\_

**Action Statement 9B:** DOE and BSC will conduct employee and supervisor/manager SCWE training.

**Due Date**  
12/31/02

**Action Plan:**

**Due Date:**

**Action Item Schedule:**

**Due Date:**

**Execution Task Description:**

**MII Action Activities**  
**Table 5: Safety-Conscious Work Environment Action Plan**

**Action Plan Responsible Manager:** Margaret Chu  
**Action Statement Responsible Task Manager:** \_\_\_\_\_

<b>Action Statement 10:</b> An external SCWE expert group will evaluate YMP-wide SCWE	<b>Due Date</b> 07/31/02
<b>Action Plan:</b>	<b>Due Date:</b>
<b>Action Item Schedule:</b>	<b>Due Date:</b>
<b>Execution Task Description:</b>	

A-35

**MII Action Activities**  
**Table B-1: Action Summary for BSC-01-C-001**

**Action Plan Responsible Manager:** Ken Hess  
**Action Statement Responsible Manager:** \_\_\_\_\_

<b>Action Statement 1:</b> Bechtel senior management team to provide recommendations to the BSC General Manager and Manager of Projects on process improvements for correction actions. (1 June 2001 Initial Response Block 14a, Page 1 of 3.)	<b>Due Date</b> Complete
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<b>Action Plan:</b>	<b>Due Date:</b>
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<b>Action Item Schedule:</b>	<b>Due Date:</b>
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<b>Execution Task Description:</b>	
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A-36

**MII Action Activities**  
**Table B-1: Action Summary for BSC-01-C-001**

**Action Plan Responsible Manager:** Bill Watson  
**Action Statement Responsible Manager:** \_\_\_\_\_

<b>Action Statement 2:</b> Develop amended actions for Block 15 (Extent of Condition) and Block 17 (Action to Preclude Recurrence) of DRs LVMO-00-D-119, LVMO-01-D-007 & BSC-01-D-050 and submit to OQA. (1 June 2001 Initial Response, Block 14a, Page 1 of 3)	<b>Due Date</b> Complete amended responses for DRs accepted by QA
<b>Action Plan:</b>	<b>Due Date:</b>
<b>Action Item Schedule:</b>	<b>Due Date:</b>
<b>Execution Task Description:</b>	

A-37

**MII Action Activities**  
**Table B-1: Action Summary for BSC-01-C-001**

**Action Plan Responsible Manager:** Nancy Williams  
**Action Statement Responsible Manager:** \_\_\_\_\_

<b>Action Statement 3:</b> BSC senior management team to organize a root cause team, including off-project personnel. (1 June 2001 Initial Response, Block 14a, Page 1 of 3)	<b>Due Date</b> Complete
<b>Action Plan:</b>	<b>Due Date:</b>
<b>Action Item Schedule:</b>	<b>Due Date:</b>
<b>Execution Task Description:</b>	

A-38

**MII Action Activities**  
**Table B-1: Action Summary for BSC-01-C-001**

**Action Plan Responsible Manager:** Bill Watson  
**Action Statement Responsible Manager:** \_\_\_\_\_

<b>Action Statement 4:</b> Model validation issues in MVSr Bin 2 and 3 were documented as technical product errors (TER) in accordance with procedure AP-15.3Q. (22 March 2002 Amended Complete Response, Block 14, Page 2 of 6)	<b>Due Date</b> Complete TERS issued. See TER log per procedure AP-15.3Q
<b>Action Plan:</b>	<b>Due Date:</b>
<b>Action Item Schedule:</b>	<b>Due Date:</b>

**Execution Task Description:**

A-39

MII Action Activities

Table B-1: Action Summary for BSC-01-C-001

Action Plan Responsible Manager: Bill Watson

Action Statement Responsible Manager: \_\_\_\_\_

**Action Statement 5:** Complete the corrective actions described in the Complete Response to DRs LVMO-00-D-119, LVMO-01-D-007 and BSC-01-D-050. (15 February 2002 Complete Response, Block 17, page 4 of 7)

**Due Date Complete** - all actions are documented in the DRs and determined to be complete by OQA verification. See OQA closure package records for the subject DRs

**Action Plan:**

**Due Date:**

**Action Item Schedule:**

**Due Date:**

**Execution Task Description:**

A-40

MII Action Activities

Table B-1: Action Summary for BSC-01-C-001

Action Plan Responsible Manager: R. Andrews

Action Statement Responsible Manager: \_\_\_\_\_

<b>Action Statement 6:</b> Science and Analysis Project planning direction to staff included a template of required planning activities to ensure that schedules by BSC encompasses model development (including validation) and model report document preparation, checking, review and approval. (15 February 2002 Complete Response, Block 17, Page 5 of 7)	<b>Due Date Completed -</b> included in Plan B BCP submitted in March 2002
<b>Action Plan:</b>	<b>Due Date:</b>
<b>Action Item Schedule:</b>	<b>Due Date:</b>
<b>Execution Task Description:</b>	

A-41

MII Action Activities

Table B-1: Action Summary for BSC-01-C-001

Action Plan Responsible Manager: M. Voegele

Action Statement Responsible Manager: \_\_\_\_\_

<b>Action Statement 7:</b> BSC self-identification of model validation problems will occur in real-time (15 February 2002 Complete Response, Block 17, Page 5 of 7)	<b>Due Date</b> 04/30/04
<b>Action Plan:</b>	<b>Due Date:</b>
<b>Action Item Schedule:</b>	<b>Due Date:</b>
<b>Execution Task Description:</b>	

A-42

<b>MII Action Activities</b> <b>Table B-1: Action Summary for BSC-01-C-001</b>	
<b>Action Plan Responsible Manager: M. Voegele</b> <b>Action Statement Responsible Manager: _____</b>	
<b>Action Statement 8:</b> Self-assessments will be conducted during the development and documentation of the License Application (LA) models. (22 March 2002 Amended Complete Response, Block 17, Page 5 of 6)	<b>Due Date</b> 04/30/04
<b>Action Plan:</b>	<b>Due Date:</b>
<b>Action Item Schedule:</b>	<b>Due Date:</b>
<b>Execution Task Description:</b>	

A-43

**MII Action Activities**  
**Table B-1: Action Summary for BSC-01-C-001**

**Action Plan Responsible Manager:**  
**Action Statement Responsible Manager:** \_\_\_\_\_

<b>Action Statement 9:</b> Procedure AP-SIII.10Q will be added to the CSO training matrix. (22 March 2002 Amended Complete Response, Block 17, Page 6 of 6)	<b>Due Date</b> 9/30/02
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<b>Action Plan:</b>	<b>Due Date:</b>
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<b>Action Item Schedule:</b>	<b>Due Date:</b>
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<b>Execution Task Description:</b>	
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A-44

MII Action Activities

Table B-1: Action Summary for BSC-01-C-001

Action Plan Responsible Manager: M. Voegelé

Action Statement Responsible Manager: \_\_\_\_\_

**Action Statement 10:** The performance indicators developed by CSO from the review of TWPs and draft model validation documentation will provide a means for CSO and Line Management to assess the effectiveness of the self-identification and issue management processes. (26 April 2002 Amended Complete Response, Block 8, Page 6 of 7)

**Due Date**  
04/30/04

**Action Plan:**

**Due Date:**

**Action Item Schedule:**

**Due Date:**

**Execution Task Description:**

A-45

<b>MII Action Activities</b> <b>Table B-1: Action Summary for BSC-01-C-001</b>	
<b>Action Plan Responsible Manager:</b> M. Voegele <b>Action Statement Responsible Manager:</b> _____	
<b>Action Statement 11:</b> An additional evaluation of the cumulative impact of Bin 3 models will be performed and documented in a revision to the MVSR. (22 March 2002 Amended Complete Response, Block 15, Page 2 of 6)	<b>Due Date</b> 04/30/04
<b>Action Plan:</b>	<b>Due Date:</b>
<b>Action Item Schedule:</b>	<b>Due Date:</b>
<b>Execution Task Description:</b>	

A-46

MII Action Activities

Table B-1: Action Summary for BSC-01-C-001

Action Plan Responsible Manager: Nancy Williams

Action Statement Responsible Manager: \_\_\_\_\_

<p><b>Action Statement 12:</b> Review new AMRs or revisions to existing AMRs issued between 11 June 2001 (date of records review that identified AMRs for the MSVR) and 21 December 2001 (effective date of AP-SIII.10Q). Review any new models found for compliance with the then current version of the modeling procedure and issue TERS on any deficient models. Document the results of this additional extent of condition and submit to OQA. (22 March 2002 Amended Complete Response, Block 15, Page 2 of 6)</p>	<p><b>Due Date</b> Complete - documented in 16 April 2002 Amended Complete Response, Block 4</p>
<p><b>Action Plan:</b></p>	<p><b>Due Date:</b></p>
<p><b>Action Item Schedule:</b></p>	<p><b>Due Date:</b></p>
<p><b>Execution Task Description:</b></p>	

A-47

**MII Action Activities**  
**Table B-2: Action Summary for BSC-01-C-002**

**Action Plan Responsible Manager:** Ken Hess  
**Action Statement Responsible Manager:** \_\_\_\_\_

<b>Action Statement 1:</b> Prior to the issuing of CAR YMSCO-01-C002, BSC senior management initiated action and presented information to corporate sponsors. (6/26/01 Initial Response, Block 14a, Page 1 of 2)	<b>Due Date Complete</b>
<b>Action Plan:</b>	<b>Due Date:</b>
<b>Action Item Schedule:</b>	<b>Due Date:</b>
<b>Execution Task Description:</b>	

A-48

**MII Action Activities**  
**Table B-2: Action Summary for BSC-01-C-002**

**Action Plan Responsible Manager:** Ken Hess  
**Action Statement Responsible Manager:** \_\_\_\_\_

<b>Action Statement 2:</b> Bechtel Corporate Executives supported the actions and mobilized to Las Vegas a senior management team composed of personnel with extensive commercial nuclear experience. The team's objectives were to review BSC actions underway and provide additional corporate resources if necessary. (6/26/01 Initial Response, Block 14a, Page 1 of 2)	<b>Due Date</b> Complete
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<b>Action Plan:</b>	<b>Due Date:</b>
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<b>Action Item Schedule:</b>	<b>Due Date:</b>
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<b>Execution Task Description:</b>
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A-49

**MII Action Activities**  
**Table B-2: Action Summary for BSC-01-C-002**

**Action Plan Responsible Manager:** Ken Hess  
**Action Statement Responsible Manager:** \_\_\_\_\_

<b>Action Statement 3:</b> An independent root cause team including off-project personnel experienced in root cause determination was organized prior to the initiation of the CAR in response to apparent software compliance issues such as LMVO-00-D-099. (6/26/01 Initial Response, Block 14a, Page 1 of 2)	<b>Due Date</b> Complete
<b>Action Plan:</b>	<b>Due Date:</b>
<b>Action Item Schedule:</b>	<b>Due Date:</b>
<b>Execution Task Description:</b>	

A-50

MII Action Activities

Table B-2: Action Summary for BSC-01-C-002

Action Plan Responsible Manager: Ken Hess

Action Statement Responsible Manager: \_\_\_\_\_

<b>Action Statement 4:</b> Also during the week of 4 June 2001, the General Manager of BSC issued a limited management stand-down on software development. (6/26/01 Initial Response, Block 14a, Page 1 of 2)	<b>Due Date</b> Complete
<b>Action Plan:</b>	<b>Due Date:</b>
<b>Action Item Schedule:</b>	<b>Due Date:</b>
<b>Execution Task Description:</b>	

A-51

<b>MII Action Activities</b> <b>Table B-2: Action Summary for BSC-01-C-002</b> <b>Action Plan Responsible Manager: Ken Hess</b> <b>Action Statement Responsible Manager: _____</b>	
<b>Action Statement 5:</b> No new software development or modification may take place during the stand-down unless specific exemptions are granted on a case-by-case basis. (6/26/01 Initial Response, Block 14a, Page 1 of 2)	<b>Due Date</b> 10/31/02
<b>Action Plan:</b>	<b>Due Date:</b>
<b>Action Item Schedule:</b>	<b>Due Date:</b>
<b>Execution Task Description:</b>	

A-52

MII Action Activities

Table B-2: Action Summary for BSC-01-C-002

Action Plan Responsible Manager: Ken Hess

Action Statement Responsible Manager: \_\_\_\_\_

**Action Statement 6:** The stand-down will be lifted when the following conditions are satisfied:  
1) Completion of 3-tiered training on Software Management Procedure AP-SI.1Q;  
2) Completion of the root cause determination to ensure that all contributing factors are known;  
3) Satisfactory resolution of factors identified in the root cause determination that would be needed to ensure that software development is carried out in compliance with AP-SI.1Q.  
(6/26/01 Initial Response, Block 14a, Page 1 of 2)

**Due Date**  
10/31/02

**Action Plan:**

**Due Date:**

**Action Item Schedule:**

**Due Date:**

**Execution Task Description:**

A-53

<b>MII Action Activities</b> <b>Table B-2: Action Summary for BSC-01-C-002</b>	
<b>Action Plan Responsible Manager:</b> M. Jaeger <b>Action Statement Responsible Manager:</b> _____	
<b>Action Statement 7:</b> The software items that were identified in CAR-002 (for Lack of Supplemental Procedures ) and the completed remedial actions are listed in CAR-002, Table 2. User request forms were prepared and submitted for the two deficient items. (6/11/02 Complete Response, Block 6, Page 7 of 25)	<b>Due Date</b> Complete
<b>Action Plan:</b>	<b>Due Date:</b>
<b>Action Item Schedule:</b>	<b>Due Date:</b>
<b>Execution Task Description:</b>	

A-54

**MII Action Activities**  
**Table B-2: Action Summary for BSC-01-C-002**

**Action Plan Responsible Manager:** M. Jaeger  
**Action Statement Responsible Manager:** \_\_\_\_\_

<b>Action Statement 8:</b> The actions to preclude recurrence for BSC-01-C-002 will be assessed for their effectiveness by a self-assessment on software developed under the new procedures. (6/11/02 Complete Response, Block 8, Page 9 of 25)	<b>Due Date</b> 12/31/02
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<b>Action Plan:</b>	<b>Due Date:</b>
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<b>Action Item Schedule:</b>	<b>Due Date:</b>
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<b>Execution Task Description:</b>
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A-55

**MII Action Activities**  
**Table B-2: Action Summary for BSC-01-C-002**

**Action Plan Responsible Manager:** P. Thompson  
**Action Statement Responsible Manager:** \_\_\_\_\_

<b>Action Statement 9:</b> Procedure improvements will preclude installation problems. (6/11/02 Complete Response, Block 8, Page 9 of 25).	<b>Due Date</b> 10/31/02
<b>Action Plan:</b>	<b>Due Date:</b>
<b>Action Item Schedule:</b>	<b>Due Date:</b>
<b>Execution Task Description:</b>	

A-56

MII Action Activities

Table B-2: Action Summary for BSC-01-C-002

Action Plan Responsible Manager: P. Thompson

Action Statement Responsible Manager: \_\_\_\_\_

<b>Action Statement 10:</b> AP-SI.IQ will be revised and new supplemental procedures will be issued in support of it. The revised processes will provide for clear identification of procedural roles, responsibilities, and authorities relative to software management requirements. (6/11/02 Complete Response, Block 8, Pages 9 and 10 of 25)	<b>Due Date</b> 10/31/02
<b>Action Plan:</b>	<b>Due Date:</b>
<b>Action Item Schedule:</b>	<b>Due Date:</b>
<b>Execution Task Description:</b>	

A-57

MII Action Activities

Table B-2: Action Summary for BSC-01-C-002

Action Plan Responsible Manager: P. Thompson

Action Statement Responsible Manager: \_\_\_\_\_

Action Statement 11: The software procedures will better define IV & V requirements. (6/11/02 Complete Response, Block 8, Page 9 of 25)

Due Date  
10/31/02

Action Plan:

Due Date:

Action Item Schedule:

Due Date:

Execution Task Description:

A-58

**MII Action Activities**  
**Table B-2: Action Summary for BSC-01-C-002**

**Action Plan Responsible Manager:** P. Thompson  
**Action Statement Responsible Manager:** \_\_\_\_\_

<b>Action Statement 12:</b> The AP-SI.1Q procedure change will address the interfaces between organizations. (6/11/02 Complete Response, Block 8, Page 10 of 25)	<b>Due Date</b> 10/31/02
<b>Action Plan:</b>	<b>Due Date:</b>
<b>Action Item Schedule:</b>	<b>Due Date:</b>

**Execution Task Description:**

A-59

<b>MII Action Activities</b> <b>Table B-2: Action Summary for BSC-01-C-002</b>	
<b>Action Plan Responsible Manager:</b> P. Thompson <b>Action Statement Responsible Manager:</b> _____	
<b>Action Statement 13:</b> Supplemental procedures will be developed to address software development and software IV & V. (6/11/02 Complete Response, Block 8, Page 10 of 25)	<b>Due Date</b> 10/31/02
<b>Action Plan:</b>	<b>Due Date:</b>
<b>Action Item Schedule:</b>	<b>Due Date:</b>
<b>Execution Task Description:</b>	

A-60

MII Action Activities

Table B-2: Action Summary for BSC-01-C-002

Action Plan Responsible Manager: S. Splawn

Action Statement Responsible Manager: \_\_\_\_\_

**Action Statement 14:** The SCM Tool will provide the additional configuration management controls necessary to preclude recurrence of installation problems. (6/11/02 Complete Response, Block 8, Page 9 of 25)

**Due Date**  
10/31/02

**Action Plan:**

**Due Date:**

**Action Item Schedule:**

**Due Date:**

**Execution Task Description:**

A-61

**MII Action Activities**  
**Table B-2: Action Summary for BSC-01-C-002**

**Action Plan Responsible Manager:** P. Thompson  
**Action Statement Responsible Manager:** \_\_\_\_\_

<b>Action Statement 15:</b> AP-SI.1Q will be revised to require that applicable software development/qualification documentation be signed by software professional(s) identified by the BSC CIO. (6/11/02 Complete Response, Block 8, Page 10 of 25.	<b>Due Date</b> 10/31/02
<b>Action Plan:</b>	<b>Due Date:</b>
<b>Action Item Schedule:</b>	<b>Due Date:</b>
<b>Execution Task Description:</b>	

A-62

**MII Action Activities**  
**Table B-2: Action Summary for BSC-01-C-002**

**Action Plan Responsible Manager:** K. Hess  
**Action Statement Responsible Manager:** \_\_\_\_\_

<b>Action Statement 16:</b> The responsibility and ownership for AP-SI.IQ was transferred from DOE to BSC. BSC has identified the Chief Information Officer (CIO) as the functional manager who owns the procedure. (6/11/02 Complete Response, Block 8, Page 10 of 25)	<b>Due Date</b> Complete
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<b>Action Plan:</b>	<b>Due Date:</b>
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<b>Action Item Schedule:</b>	<b>Due Date:</b>
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<b>Execution Task Description:</b>	
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A-63

**MII Action Activities**  
**Table B-2: Action Summary for BSC-01-C-002**

**Action Plan Responsible Manager:** R. Dyer  
**Action Statement Responsible Manager:** \_\_\_\_\_

<p><b>Action Statement 17:</b> BSC and DOE recognize the lack of procedural compliance was an important casual factor. DOE took the following actions to ensure that the expectation of compliance is well communicated: a Yucca Mountain Site Characterization Project (YMP) Announcement was posted by Russ Dyer, DOE Project Manager (4/16/02), establishing firm commitment to procedural compliance and action/escalation steps to be taken if procedural compliance became a problem. (6/11/02 Complete Response, Block 8, Page 10 of 25)</p>	<p><b>Due Date</b> Complete</p>
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<p><b>Action Plan:</b></p>	<p><b>Due Date:</b></p>
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<p><b>Action Item Schedule:</b></p>	<p><b>Due Date:</b></p>
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<p><b>Execution Task Description:</b></p>
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A-64

**Action Activities**  
**Table B-2: Action Summary for BSC-01-C-002**

**Action Plan Responsible Manager:** K. Hess  
**Action Statement Responsible Manager:** \_\_\_\_\_

<p><b>Action Statement 18:</b> BSC and DOE recognize the lack of procedural compliance was an important casual factor. BSC took the following actions to ensure that the expectation of compliance is well communicated: A BSC Today announcement was posted 12/04/01 establishing a firm commitment to procedural compliance and action/escalation steps to be taken if procedural compliance became a problem. BSC issued POL-HR-031, <i>Progressive Discipline Guidelines for Non-Bargaining Employees</i>. (6/11/02 Complete Response, Block 8, Page 10 of 25)</p>	<p><b>Due Date:</b> Complete</p>
<p><b>Action Plan:</b></p>	<p><b>Due Date:</b></p>
<p><b>Action Item Schedule:</b></p>	<p><b>Due Date:</b></p>
<p><b>Execution Task Description:</b></p>	

A-65

**MII Action Activities**  
**Table B-2: Action Summary for BSC-01-C-002**

**Action Plan Responsible Manager:** M. Voegele  
**Action Statement Responsible Manager:** \_\_\_\_\_

<b>Action Statement 19:</b> BSC Project management is working with DOE, the National Labs and USGS to ensure that personnel performance issues are addressed appropriately and quickly in accordance with each organization's policies and procedures. BSC will establish policies and/or guidance to consistently identify and implement appropriate action for compliance problems. (6/11/02 Complete Response, Block 8, Page 10 of 25)	<b>Due Date:</b> 08/30/02
<b>Action Plan:</b>	<b>Due Date:</b>
<b>Action Item Schedule:</b>	<b>Due Date:</b>
<b>Execution Task Description:</b>	

A-66

**MII Action Activities**  
**Table B-2: Action Summary for BSC-01-C-002**

**Action Plan Responsible Manager:** P. Turner  
**Action Statement Responsible Manager:** \_\_\_\_\_

<p><b>Action Statement 20:</b> A revision to AP-SI.1Q and development of new associated supplemental procedures is in progress. The revised processes will provide for clear identification of procedural roles, responsibilities, and authorities relative to software management requirements. Training of the procedure (new AP-SI.1Q and supplemental procedures) users and responsible managers will specifically emphasize these R2A2 provisions. (6/11/02 Complete Response, Block 8, Page 10 of 25)</p>	<p><b>Due Date</b> 09/30/02</p>
<p><b>Action Plan:</b></p>	<p><b>Due Date:</b></p>
<p><b>Action Item Schedule:</b></p>	<p><b>Due Date:</b></p>
<p><b>Execution Task Description:</b></p>	

A-67

**MII Action Activities**  
**Table B-2: Action Summary for BSC-01-C-002**

**Action Plan Responsible Manager:** Paul Turner  
**Action Statement Responsible Manager:** \_\_\_\_\_

<p><b>Action Statement 21:</b> The Chief Information Officer (CIO), as procedure owner, will support the BSC Training Department in their development of the training courses that will be used to train project personnel on the new software procedures and ensure that the training content is effective. The training program will ensure that the individuals involved in the development of software are fully aware of the roles, responsibilities, authority and accountability (R2A2). A portion of the training given on the new and revised procedures will emphasize the preparation of the software qualification package and that the individual preparers will be held accountable for the final quality of the submitted package. This training will be provided with the support of Subject Matter Experts (SMEs). The questions from the attendees and appropriate answers will be documented and shared with other procedure users in accordance with the BSC Training Department's standard processes. (6/11/02 Complete Response, Block 8, Page 10 of 25).</p>	<p><b>Due Date</b> 09/01/02</p>
<p><b>Action Plan:</b> This action is considered complete (target date) when the course is prepared and ready to give to OCRWM personnel.</p>	<p><b>Due Date:</b></p>
<p><b>Action Item Schedule:</b></p>	<p><b>Due Date:</b></p>
<p><b>Execution Task Description:</b></p>	

A-68

**MII Action Activities**  
**Table B-2: Action Summary for BSC-01-C-002**

**Action Plan Responsible Manager:** Paul Turner  
**Action Statement Responsible Manager:** \_\_\_\_\_

<p><b>Action Statement 22:</b> Training will be scheduled at YMP locations prior to the effective date of the new procedures so that as many personnel as possible are trained during this period. Courses will be scheduled, as required, to train personnel. Software users (of software in the Baseline), developers, reviewers, verifiers, senior and middle-level managers will be required to attend the training prior to performing work covered under the procedure. At the conclusion of the training, in accordance with standard BSC Training Department processes, a test will be given to the attendees to evaluate the effectiveness of the training. (6/11/02 Complete Response, Block 8, Page 11 of 25)</p>	<p><b>09/01/02</b></p>
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<p><b>Action Plan:</b> This action is considered complete (target date) when the course is prepared and ready to give to OCRWM personnel.</p>	<p><b>Due Date:</b></p>
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<p><b>Action Item Schedule:</b></p>	<p><b>Due Date:</b></p>
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**Execution Task Description:**

A-69

**MII Action Activities**  
**Table B-2: Action Summary for BSC-01-C-002**

**Action Plan Responsible Manager:** Nancy Williams  
**Action Statement Responsible Manager:** \_\_\_\_\_

<b>Action Statement 23:</b> Effectiveness of the training will be evaluated through self-assessments. (6/11/02 Complete Response, Block 8, Page 11 of 25)	<b>Due Date</b> 12/01/02
<b>Action Plan:</b>	<b>Due Date:</b>
<b>Action Item Schedule:</b>	<b>Due Date:</b>
<b>Execution Task Description:</b>	

A-70

MII Action Activities  
Table B-2: Action Summary for BSC-01-C-002

Action Plan Responsible Manager: D. Tommela  
Action Statement Responsible Manager: \_\_\_\_\_

Action Statement 24: Improved SDN trending will provide a method to identify programmatic issues to include in the project issue management programs. (6/11/02 Complete Response, Block 8, Page 9 of 15)	Due Date 10/01/02
Action Plan:	Due Date:
Action Item Schedule:	Due Date:
Execution Task Description:	

A-71

B-1

Activity ID	Activity Description	ORG	SPONSOR	MANAGER	Orig Dur	Rem Dur	Start	Early Start	Early Finish	2001	2002	2003
<b>Program Role, Report, Authority, &amp; Accountability</b>												
MMIMA005	DOE Prepare Management Alignment Plan	DOE	CHU	RUNKLE	20	20	0	03SEP02	30SEP02			
MMIMA015	DOE Prepare Communication Plan	DOE	CHU	RUNKLE	10	10	0	01OCT02	14OCT02			
MMIPR005	DOE Issue Policy Stmt - Expectations OCRWM Mgt	DOE	CHU		9	0	100	20AUG02A	06SEP02A			
MMIPR010	DOE Clarify R2A2 within OCRWM Organization	DOE	CHU	DYER	20	20	0	03SEP02	30SEP02			
MMIPR017	DOE Staff Orientation of Reassigned Organization	DOE	CHU	RUNKLE	10	10	0	15OCT02	28OCT02			
MMIPR020	BSC Staff Orientation to Reassigned Organization	BSC	HESS	PEARMAN	10	10	0	15OCT02	28OCT02			
MMIPR025	DOE Issue Program Man Providing Implement Rqmts	DOE	RUNKLE	DYER	40	39	35	06SEP02A	25OCT02			
MMIPR030	DOE Perform Appraisals Revised to Reflect R2A2	DOE	CHU	RUNKLE	27	27	0	14NOV02	24DEC02*			
MMIPR040	Confirm Compl of MI R2A2 Activities	BSC	HESS	CONF TEAM	09	09	0	03SEP02	20JAN03			
<b>Quality Assurance Programs and Processes</b>												
MMIQAO05	DOE Issue Policy Stmt - Expect OCRWM Mgt QA	DOE	CHU	RUNKLE	9	0	100	30AUG02A	06SEP02A			
MMIQAO15	DOE Clarify R2A2 within OCRWM Orgn & BSC QA	DOE	CHU	RUNKLE	20	20	0	03SEP02	30SEP02			
MMIQAO17	BSC Staffs Oriented to Reassigned QA R2A2	BSC	HESS	PEARMAN	10	10	0	01OCT02	14OCT02			
MMIQAO20	QA/RD Reviewed and Revised as Necessary	DOE	CHU	RUNKLE	62	62	0	03SEP02	27NOV02			
MMIQAO25	DOE Perform Appraisal Revised to Reflect QA R2A2	DOE	CHU	RUNKLE	20	20	0	25NOV02	24DEC02*			
MMIQAO35	Confirm Completion of MI QA Activities	BSC	HESS	CONF TEAM	09	09	0	03SEP02	20JAN03			
<b>Program Procedures</b>												
MMIPP005	DOE Clarify R2A2 Procedure Development/Imp.	DOE	CHU	RUNKLE	29	29	0	20AUG02	30SEP02			
MMIPP010	DOE Review Respect Proc. & Define Hierarch	DOE	HORTON	VANDERPEY	20	20	0	01OCT02	28OCT02			
MMIPP013	Issue New/Revised Procedures Comply w/OCRWM Req.	DOE	HORTON	VANDERPEY	120	120	0	27NOV02*	27MAY03			
MMIPP015	Start Train Personnel to use New/Revised Proc.	DOE	HORTON	VANDERPEY	120	120	0	27NOV02*	27MAY03			
MMIPP020	BSC Review Respect Proc. & Define Hierarch	BSC	WILLIAMS	WILLIAMS	20	20	0	01OCT02	28OCT02			
MMIPP022	Issue New/Revised Procedures Comply w/OCRWM Req.	BSC	WILLIAMS	WILLIAMS	120	120	0	27NOV02*	27MAY03			
MMIPP023	Start Train Personnel to use New/Revised Proc.	BSC	WILLIAMS	TURNER	120	120	0	27NOV02*	27MAY03			
MMIPP040	Confirm Completion of MI Procedure Activities	BSC	WILLIAMS	CONF TEAM	181	181	0	01OCT02	24JUN03			
<b>Corrective Action Program</b>												
MMICA005	DOE OCA Assigned Respons OCRWM Corr Action Ptn	DOE	CHU	RUNKLE	0	0	0	20AUG02	30AUG02			
MMICA010	DOE Task Team - Rqmts/Specs for Corr Action Prgm	DOE	HORTON	VANDERPEY	20	20	0	03SEP02	30SEP02			
MMICA015	BSC Implement OCRWM Action Program	BSC	PEARMAN	KRISHA	100	100	0	01OCT02	28FEB03*			
MMICA020	BSC Define/Implement Self-Assessment Pgm, etc.	BSC	PEARMAN	KRISHA	120	120	0	02OCT02	31MAR03*			

Start Date: 01MAY02  
 Finish Date: 16APR04  
 Data Date: 28AUG02  
 Rev Date: 11FEB02 13:11

Legend:  
 [Green Bar] Early Bar  
 [Yellow Bar] Progress Bar  
 [Red Bar] Critical Activity

Sheet 1 of 1  
 OCRWM MI Schedule  
 02/11/02

Date	Issues	Checked	Approved

Activity ID	Activity Description	ORG	RESPONSOR	MANAGER	Orig Dur	Rem Dur	% Comp	Start	Early Start	Finish	Early Finish	Gantt Chart (2001-2002)				
MMICA030	Confirm Completion of MI CA Program Activities	BSC	PEARMAN	CONF TEAM	161	161	0	03SEP02		28APR03						
<b>Safety-Conscious Work Environment</b>																
MMISC005	DOE/BSC Issue Expanded SCWE Policy	DOE			0	0	100			31MAY02A						
MMISC010	DOE Implem SCWE/Employee Conc Prog into Contract	DOE			0	0	100			31JUL02A						
MMISC015	DOE Modify BSG Cont to Implem SCWE Policy Reqmt	DOE	RUNKLE	HORTON	0	0	0	20AUG02		30AUG02						
MMISC017	DOE Mod Other Contr to Implem SCWE Policy Reqmt	DOE	RUNKLE	HORTON	42	42	0	03SEP02		30OCT02						
MMISC020	DOE eliminate backlog open OCRM Concerns	DOE	RUNKLE	HORTON	0	0	0	20AUG02		30AUG02						
MMISC025	Estab. DOE Policy/Proced to Escalate Issues	DOE	DYER	HORTON	0	0	0	20AUG02		30AUG02						
MMISC030	Estab BSG Policy/Proced to Escalate Issues	BSG	PEARMAN	PEARMAN	0	0	0	20AUG02		30AUG02						
MMISC035	DOE develop/Revise SCWE Training Modules	DOE	DYER	VANDERPEY	0	0	0	20AUG02		30AUG02						
MMISC037	BSG develop/Revise SCWE Training Modules	BSG	PEARMAN	TURNER	0	0	0	20AUG02		30AUG02						
MMISC040	BSG establish Internal BSC Reporting Privileges	BSG	PEARMAN	PEARMAN	20	20	0	03SEP02		30SEP02						
MMISC045	DOE conduct employee/Superv/Mangr SCWE Train	DOE	HORTON	VANDERPEY	70	70	0	03SEP02		24DEC02						
MMISC047	BSG conduct employee/Superv/Mangr SCWE Train	BSG	PEARMAN	TURNER	70	70	0	03SEP02		24DEC02						
MMISC050	External SCWE Expert Group Eval YPM wide SCWE	BSG	HESS	PEARMAN	140	140	0	02JAN03		21JUL03						
MMISC070	Confirm Completion of MI SCWE Activities	BSG	PEARMAN	CONF TEAM	20	20	0	02JAN03		29JAN03						
<b>CARs</b>																
<b>Immediate Actions</b>																
MMCAR1005	Process Improvement Recommendations TO BSC GM	BSG	WILLIAMS		0	0	100			01JUN01A						
MMCAR1010	Develop Amend Action Bkts 15/17 DR LVMO-00-D-110	BSG	WILLIAMS		0	0	100			01JUN01A						
MMCAR1015	Develop Amend Action Bkts 15/17 DR LVMO-01-D-007	BSG	WILLIAMS		0	0	100			01JUN01A						
MMCAR1020	Develop Amend Action Bkts 15/17 DR BSC-01-D-050	BSG	WILLIAMS		0	0	100			01JUN01A						
MMCAR1025	BSG Senior Mgmt Organize Root Cause Team	BSG	WILLIAMS		0	0	100			01JUN01A						
<b>Remedial Actions</b>																
MMCAR1030	MYER Bin 2 & 3 were TERs - Resolution	BSG	WILLIAMS		0	0	100			22MAR02A						
<b>Actions to Prevent Recurrence</b>																
MMCAR1035	Compl the CA Described in DRs LVM-00-D-119	BSG	WILLIAMS		0	0	100			15FEB02A						
MMCAR1040	Compl the CA Described in DRs LVM-01-D-007	BSG	WILLIAMS		0	0	100			15FEB02A						
MMCAR1043	Compl the CA Described in DRs BSG-01-D-050	BSG	WILLIAMS		0	0	100			15FEB02A						
MMCAR1045	Science planning ensure Model Valid fpl Document	BSG	WILLIAMS		0	0	100			29MAR02A						
MMCAR1050	BSG Self-Ident of Model Valid Prob - Real-time	BSG	WILLIAMS	VOEGELE	392	392	0	20AUG02		19MAR04						
MMCAR1060	Self-Assessment of Develop/Doc of LA Models	BSG	WILLIAMS	VOEGELE	392	392	0	20AUG02		19MAR04						
MMCAR1070	Add AP-SIII 10Q to CSO Training Matrix	BSG	WILLIAMS	VOEGELE	18	18	0	20AUG02		13SEP02*						
MMCAR1080	CSO/Lne Mgmt Assess Effect. of Self Ident Issue	BSG	WILLIAMS	VOEGELE	392	392	0	20AUG02		19MAR04						

B-2

Start Date	01MAR01	Legend	Early Bar	DCRWM MI Schedule 02/11/02	Task	Resour	Checked	Approved
Finish Date	18APR04	Legend	Progress Bar					
Date Data	20AUG02	Legend	Critical Activity					
Start Date	11SEP02 13:14							

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Activity ID	Activity Description	ORG	SPONSOR	MANAGER	Orig Dur	Rem Dur	Start	Finish	Start	Finish
MMCAR1000	Eval Impact Bin 3 Models in MCSR Revision	BSC	WILLIAMS	YONKER	392	392	0	20AUG02	19MAR04	
MMCAR1100	Review New/Existing AMRs (6/11/01-12/21/01)	BSC	WILLIAMS	CONF TEAM	20	20	0	22MAR04	18APR04	
MMCAR1110	Close CAR BSC C-001									
<b>CAR 02</b>										
Immediate Actions										
MMCAR2010	BSC Mgmt Action Prior to CAR YMSCD-01-C002	BSC	WILLIAMS	JAEGER	0	0	100		05MAY01A	
MMCAR2020	BSC Actions in support of Nuclear Experience	BSC	WILLIAMS	JAEGER	0	0	100		06JUL01A	
MMCAR2030	Independent Root Cause Analysis - LMVO-00-D-009	BSC	WILLIAMS	JAEGER	0	0	100		08SEP01A	
MMCAR2040	BSC Limited Stand down (6/4/01)	BSC	WILLIAMS	JAEGER	0	0	100		10JUN02A	
MMCAR2050	Software Standown on New/Mods in Effect (5)	BSC	WILLIAMS	JAEGER	30	30	0	20AUG02	01OCT02	
MMCAR2051	Software Standown on New/Mods Prelim Confirm (5)	BSC	WILLIAMS	CONF TEAM	30	30	0	20AUG02	01OCT02	
MMCAR2052	Software Standown on New/Mods Final Confirm (5)	BSC	WILLIAMS	CONF TEAM	20	20	0	02OCT02	29OCT02	
MMCAR2060	Stand Down Lifting Criteria Satisfied (6)	BSC	WILLIAMS	JAEGER	30	30	0	20AUG02	01OCT02	
MMCAR2061	Stand Down Lifting Criteria Prelim Confirm (6)	BSC	WILLIAMS	CONF TEAM	30	30	0	20AUG02	01OCT02	
MMCAR2062	Stand Down Lifting Criteria Final Confirm (6)	BSC	WILLIAMS	CONF TEAM	20	20	0	02OCT02	29OCT02	
Remedial Actions										
MMCAR2070	Remedial actions for CAR-002 Table 2 Completed	BSC	WILLIAMS	JAEGER	0	0	100		11JUN02A	
Actions to Preclude Recurrence										
MMCAR2071	Self-Asses to assess recurrence CAR cond (8)	BSC	WILLIAMS	JAEGER	267	267	0	01NOV02	26NOV03	
MMCAR2072	Self-Asses recurrence CAR cond Confirm (8)	BSC	WILLIAMS	CONF TEAM	267	267	0	01NOV02	26NOV03	
MMCAR2073	Self-Asses recurrence CAR cond Confirm (8)	BSC	WILLIAMS	CONF TEAM	20	20	0	26NOV03	02JAN04	
MMCAR2081	SW Procedure Rev to Preclude Install Probs (9)	BSC	WILLIAMS	THOMPSON	30	30	0	20AUG02	01OCT02	
MMCAR2082	SW Proc Rev Preclude Install Prob Prel Conf (9)	BSC	WILLIAMS	CONF TEAM	30	30	0	20AUG02	01OCT02	
MMCAR2083	SW Proc Rev Preclude Install Prob Final Conf (9)	BSC	WILLIAMS	CONF TEAM	20	20	0	02OCT02	29OCT02	
MMCAR2090	SW Proc Rev Preclude Install Prob Final Conf (9)	BSC	WILLIAMS	CONF TEAM	30	30	0	20AUG02	01OCT02	
MMCAR2091	AP-SI 1Q Rev & New Suppl Procedures Issued (10)	BSC	WILLIAMS	THOMPSON	30	30	0	20AUG02	01OCT02	
MMCAR2100	AP-SI 1Q Rev & New Suppl Proc Issue PreConf (10)	BSC	WILLIAMS	CONF TEAM	30	30	0	20AUG02	01OCT02	
MMCAR2101	AP-SI 1Q Rev & New Suppl Proc Issue Final Conf (10)	BSC	WILLIAMS	CONF TEAM	20	20	0	02OCT02	29OCT02	
MMCAR2110	SW Procedure to define IV&V Requirements (11)	BSC	WILLIAMS	THOMPSON	30	30	0	20AUG02	01OCT02	
MMCAR2111	SW Procedure to define IV&V Requir Pre Conf (11)	BSC	WILLIAMS	CONF TEAM	30	30	0	20AUG02	01OCT02	
MMCAR2112	SW Procedure to define IV&V Requir Final Conf (11)	BSC	WILLIAMS	CONF TEAM	20	20	0	02OCT02	29OCT02	
MMCAR2120	AP-SI 1Q Chg to address Org Interface (12)	BSC	WILLIAMS	THOMPSON	30	30	0	20AUG02	01OCT02	
MMCAR2121	AP-SI 1Q Chg to address Organ Inter PreConf (12)	BSC	WILLIAMS	CONF TEAM	30	30	0	20AUG02	01OCT02	
MMCAR2122	AP-SI 1Q Chg to address Organ Inter Final Conf (12)	BSC	WILLIAMS	CONF TEAM	20	20	0	02OCT02	29OCT02	
MMCAR2130	Supp SW Proceed for Dev & IV&V Issue (13)	BSC	WILLIAMS	THOMPSON	30	30	0	20AUG02	01OCT02	

B-3

Start Date	14APR04	Early Bar	
Finish Date	20AUG02	Progress Bar	
Data Date	11OCT02 13:14	Critical Activity	
Plan Date			

OCRWM Mit Schedule  
09/11/02

Task	Resum	Checkd	Approved

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