

**MISSION 2001**

**FINAL REPORT**

**SEPTEMBER 18, 1992**

**Prepared by:**

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Management and Operating Contractor  
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Las Vegas, Nevada 89109**

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PDR WASTE  
WM-11 PDR**

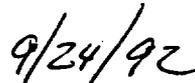
**MISSION 2001  
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**SEPTEMBER 18, 1992**

Approved by:



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L. Dale Foust, Nevada Site Manager  
Management and Operating Contractor



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Date

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# MISSION 2001 - FINAL REPORT

## I. EXECUTIVE SUMMARY

The objective of Mission 2001 was to validate the scope, cost, and schedule required to submit a license application for repository construction authorization by October 30, 2001. The Mission 2001 Team was successful in developing a completely regenerated, integrated network schedule for the project activities supported by a detailed cost estimate. This rigorous reworking of the schedule challenged the assumption that a License Application could be completed by October 30, 2001. This effort involved all participants and the Yucca Mountain Site Characterization Project Office (YMPO).

The results of the Mission 2001 exercise are provided in the attached schedule and cost data. Based on this exercise the projected completion date for License Application is verified as October 30, 2001. The fully escalated cost estimate is approximately \$6.1B. Attachment I.1 tabulates the cost estimate.

The Yucca Mountain Site Characterization Project (YMP) Manager made a presentation to the Office of Civilian Radioactive Waste Management (OCRWM) on February 3, 1992, entitled "License Application 2001 - Can It Still be Done." This presentation was the result of a brief budgeting and scheduling exercise conducted by CRWMS M&O. The objective of the study was to address concerns that the risk of a license application submittal by 2001 had increased significantly due to continued underfunding.

Following the presentation by the YMP Project Manager, CRWMS M&O recommended that a detailed, bottom-up estimate and schedule be developed to validate that License Application could be accomplished by October 30, 2001. This validation would provide an acceptable level of confidence in the plan due to the approach and level of effort exerted.

Mission 2001 was initiated in early March, 1992. The team was organized, high-level milestones were established, goals and strategies were communicated, and responsibilities were assigned. Workshops were conducted with each participant to review the milestone schedules, FY 1993 budget guidance, and the goals and strategies for Mission 2001.

To facilitate the process, Planning and Control System (PACS) work stations were utilized at each major participant location. Work scopes, cost estimates, and schedules were input into PACS by each participant for their work. The PACS work stations are also utilized to input monthly updates of progress. The Civilian Radioactive Waste Management System Management and Operating Contractor (CRWMS M&O) was in frequent contact with the participants to ensure scopes of work were consistent and within the guidelines of Mission 2001.

Participants met, individually and in groups, with CRWMS M&O/U.S. Department of Energy (DOE)/Technical and Management Support Services (T&MSS) representatives in Las Vegas to integrate the project schedule. This phase of Mission 2001 extended over a two-week period and resulted in an integrated schedule with a License Application date of October 30, 2001. All participants agree with the integrated schedule.

The cost estimates were reviewed in detail by CRWMS M&O to verify consistency and reasonableness. The Energy System Acquisition Advisory Board (ESAAB) baseline, Independent Cost Estimate (ICE) report and industry knowledge were utilized in this review. Numerous cost reductions were recommended and have been agreed to by the appropriate YMPO Division Directors and communicated to the participants.

The Mission 2001 exercise has definitized the schedule and funding profiles required to submit a license application for repository construction authorization by October 30, 2001. The level of effort exerted by CRWMS M&O, participants, and DOE in defining the scope, budgets, and schedules provides a high degree of credibility for the Mission 2001 results. The Mission 2001 plan will serve as the tool for analyzing changes in annualized funding, scope, or other variations to determine their impacts on completion of the License Application.

# YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT BUDGET DETAILS

(YEAR OF EXPENDITURE \$M)

WBS		PRIOR	FY93	FY94	FY95	FY96	FY97	FY98	FY99	FY00	FY01	TOTAL
1.2.1	SYSTEMS	103.9	25.9	43.6	51.2	53.9	55.1	56.4	55.6	47.6	41.9	535.3
1.2.2	WASTE PACKAGE	86.4	10.2	31.9	37.5	39.3	36.9	31.5	23.1	17.7	14.0	330.5
1.2.3	SITE	337.2	68.3	153.1	161.6	155.3	156.6	111.3	47.1	28.2	16.1	1235.0
1.2.4	REPOSITORY	95.5	11.4	24.9	40.8	47.8	72.9	136.0	129.6	85.5	60.9	707.3
1.2.5	REGULATORY & INST	107.6	23.6	37.1	42.3	43.0	44.9	46.7	46.5	36.3	51.9	481.9
1.2.6	ESF	111.7	71.8	171.0	154.3	129.5	46.2	40.3	21.8	19.9	19.4	785.9
1.2.7	TEST FACILITIES	30.0	16.6	59.8	45.5	42.3	39.6	36.4	30.1	25.9	25.7	354.0
1.2.8	LAND ACQUISITION	1.3	0.2	0.2	0.2	0.2	0.6	0.5	0.5	0.6	0.6	5.0
1.2.9	PROJECT MANAGEMENT	293.3	56.8	80.2	79.7	85.2	87.2	87.5	78.9	75.2	71.7	995.8
1.2.10	F&TA	86.5	35.0	83.0	82.6	79.6	72.3	71.7	60.8	52.4	46.9	672.7
<b>TOTAL</b>		<b>1255.5</b>	<b>321.9</b>	<b>685.0</b>	<b>695.8</b>	<b>676.2</b>	<b>612.4</b>	<b>620.1</b>	<b>494.0</b>	<b>391.3</b>	<b>351.0</b>	<b>6103.3</b>

- This funding profile is based upon completion of the current work scope. The 2001 completion date can be maintained by replanning work in FY93 for funding above \$240M.
- Funding scenario presented includes budget reductions of approximately \$220M which has not yet been planned by the appropriate participants.
- Staffing ramp-up from FY93 to FY94 is high risk but funding at full value is critical to support large capital commitments as well as maintenance of project momentum.
- Estimate to Complete FY93 to 2001 (Less F&TA) is \$4261.6M.

## **II. ASSUMPTIONS**

The major assumptions for replanning the mission schedule are that October 30, 2001 is a realistic date for submitting a repository license application, and that the fiscal year (FY) 1993 Congressional Budget Request (\$243M), plus the proposed FY 1993 Supplemental Request (\$75M), will be employed. The supplemental request allows for tunneling equipment to be procured a year earlier than previously scheduled, therefore allowing the subsurface excavation and testing to be started earlier also. The old, or current, Work Breakdown Structure (WBS) was used for this replanning effort. Each participant reviewed their level of detail in their schedule to allow for a more consistent and manageable schedule. The FY 1993 budget splits were assigned by WBS and Participant per Attachment II.1.

The milestone chart (Attachment II.2) provided the planning guidance required to support license application on October 30, 2001. All participants were instructed to develop their schedules in accordance with this guidance and to identify potential problem areas.

The project was assumed to be schedule driven after FY 1993. In other words, a logical sequencing of activities to accomplish license application would determine the necessary annual funding.

The scope of all tasks must be challenged by all participants to ensure that all activities to be performed are required for site suitability and licensing. Extraneous activities are to be deleted.

The technical baseline for Mission 2001 consists of the Site Characterization Plan (SCP) and the SCP Conceptual Design Report, as modified by the Exploratory Studies Facility (ESF) Alternative Study Option 30, modified.

It was assumed that permits would be issued in a timely manner and not affect the schedule.

YMPO will continue to streamline the management approach, especially in the areas of:

- raise YMPO decision levels--oversee CRWMS M&O program implementation
- reduce complexity of Quality Assurance/Procurement Process
- procedural simplification.

### F/Y 1993 BUDGET SPLITS(\$K)

DATE	REPCO	EPA	OSTI	WSI	LEL	PNL	USGS	EGG	DRI	TMSS	ESN	LANL	M&O	BOM	MSHA	UT	ACOE	LLNL	SNL	NTS	TOTAL	
92-899	150				1325	75	540	2375		50	205	530	10540						1620	6530		24000
122	WASTE PACKAGE												2705						7245	50		10000
123	SITE				1500	500	21025	50		5351	1500	9400	3500			300			850	2230		74300
124	REPOSITORY												7000							3394		11000
125	REG/INSTITUTIONAL				75		1165	3400	900	8805		175	6965						180	190		22000
126	ESF	45910									800	2404	20245	50	50		50			231		69600
127	TEST FACILITIES	12311								2519	2070	100									200	18000
128	LAND ACQUISITION									151												151
129	PROJECT MGMT	6571		205	205		4459	50		15145	2800	3644	15518						2239	3758		54000
1210	FINANCIAL/TECH ASS																					35000
<b>PARTICIPANT TOTAL</b>		<b>92311</b>	<b>204</b>	<b>205</b>	<b>205</b>	<b>2966</b>	<b>575</b>	<b>27789</b>	<b>5875</b>	<b>900</b>	<b>32221</b>	<b>8041</b>	<b>15713</b>	<b>67079</b>	<b>50</b>	<b>50</b>	<b>300</b>	<b>50</b>	<b>12134</b>	<b>16383</b>	<b>200</b>	<b>318251</b>

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ATTACHMENT I.I.1

Report: ST02ARI  
 Project: WYOM-11  
 Time Now: 01OCT91  
 Date: 02MAY92  
 Page: 1

## PROPOSED MISSION 2001 MILESTONES

**CRWMS M & O**

ACTIVITY	TASKS	DATES	01 JAN 92	01 JAN 93	01 JAN 94	01 JAN 95	01 JAN 96	01 JAN 97	01 JAN 98	01 JAN 99	01 JAN 00	01 JAN 01
<b>LEVEL ZERO MILESTONES</b>												
RM430	START REPOSITORY ACD	01OCT92	Δ									
RM233	START WASTE PACKAGE ACD	01OCT92	Δ									
RM652	START ESF COLLAR/PORTAL CONSTRUCTION	04OCT93		Δ								
RM458	START REPOSITORY LAD	03JUN96					Δ					
RM610	START ESF IN-SITU TEST PHASE	03JUN96					Δ					
RT074	START WASTE PACKAGE LAD	03JUN96					Δ					
RS181	SUBMIT LICENSE APPL TO THE NRC	30OCT01										Δ
<b>LEVEL ONE MILESTONES</b>												
RM645	START ESF SITE PREPARATION	30NOV92	Δ									
MS1830	COMPLETE ESF SITE CHAR DESIGN DATA ACD	31JAN94			Δ							
MS725	COMPLETE RAMP/DRIFTING DESIGN	01AUG94				Δ						
MS1000	START RAMP/DRIFTING CONSTRUCTION	03OCT94				Δ						
MS800	COMPLETE REPOSITORY ACD	30OCT95					Δ					
MS1020	COMPLETE WASTE PKG ACD DRAFT REPORT	31OCT95					Δ					
MS820	COMPLETE ACD PERFORMANCE ASSESSMENT	01JUL96						Δ				
RS108	ISSUE REPOSITORY EIS NOTICE OF INTENT	02JUN97							Δ			
MS1840	COMPLETE REPOS SITE CHAR DSGN DATA ACD	02JAN98								Δ		
RS142	ISSUE MGDS EIS IMPLEMENTATION PLAN	02MAR98									Δ	
MS1810	COMPLETE HYDROLOGIC SITE CHAR FOR LAD	29JAN99										Δ
MS1800	COMPLETE GEOLOGICAL SITE CHAR FOR LAD	30JUN99										Δ
RS151	ISSUE DRAFT ENVIRON IMPACT STATEMENT	30SEP99										Δ
RS210	NOTIFY STATE OF PROPOSED SITE SELECTION	01NOV99										Δ
MS1820	COMPLETE GEOCHEMISTRY SITE CHAR FOR LAD	31DEC99										Δ
RS220	NOTIFY STATE OF SITE SELECTION	30MAR01										Δ
RS161	ISSUE FINAL ENVIRON IMPACT STATEMENT	30MAR01										Δ
MS500	COMPLETE TOTAL SYSTEM PA FOR LA	30MAR01										Δ
MS840	COMPLETE REPOSITORY LAD	30MAR01										Δ

-In progress  
 -Planned  
 -Critical

ATTACHMENT E.2, 1/3





### **III. PROCESS**

Mission 2001 was initiated in early March 1992. A task team, consisting of DOE, CRWMS M&O, and major participant personnel, was organized to prepare an integrated plan to validate license application on October 30, 2001. This organization is presented as Attachment III.1. Task Leaders were assigned for Site, Waste Package, Facilities, Systems, Management and Integration, and Program Control. Project Engineers were assigned to coordinate the efforts of major participants. Integrators assisted the Task Leaders in the vertical integration of their respective areas.

Level 0, 1, and 2 milestones were established by management to support license application on October 30, 2001. Objectives and strategies for the Mission 2001 plan were also developed. These are outlined below:

#### **Objectives**

- Validate the scope, cost, and schedule required to submit a License Application (LA) by 2001
- Establish project level milestones to meet LA by 2001
- Define activities and resources required to support the milestones
- Expand the schedule, scope, and budget to lower levels
- Prepare detailed Planning and Control System (PACS) input for a revised baseline
- Develop a Mined Geologic Disposal System (MGDS) which meets the requirements for:
  - site characterization and suitability
  - design and development
  - licensing

#### **Strategies**

- Maximize use of past work and current baselines
- Minimize trade studies
- Utilize existing technologies
- Focus characterization needs for licensing, performance assessment, and design and development

- Challenge existing scope and cost estimates
- Focus research to support development of the MGDS
- Implement a rigorous Project Management approach to the execution of the project

Workshops were conducted with each major participant. Mission 2001 Detailed Planning Guides (Appendix A) were distributed and discussed. These planning guides described assumptions, organization, workscopes and budgets, schedule, integration, and basis of estimate. Attachments included the milestone schedule, planning process, organization, guidelines for preparing a basis of estimate, a PACS Interface Logic Report, and FY 1993 budget splits.

PACS workstations were utilized by the major participants to input scope and cost estimate data. Schedules were developed by each participant with a program familiar to that participant. These schedules, scopes, and estimates were then uploaded into PACS.

CRWMS M&O Task Leaders and Project Engineers worked with the participants to resolve scopes of work and scheduling issues prior to the uploading of this information.

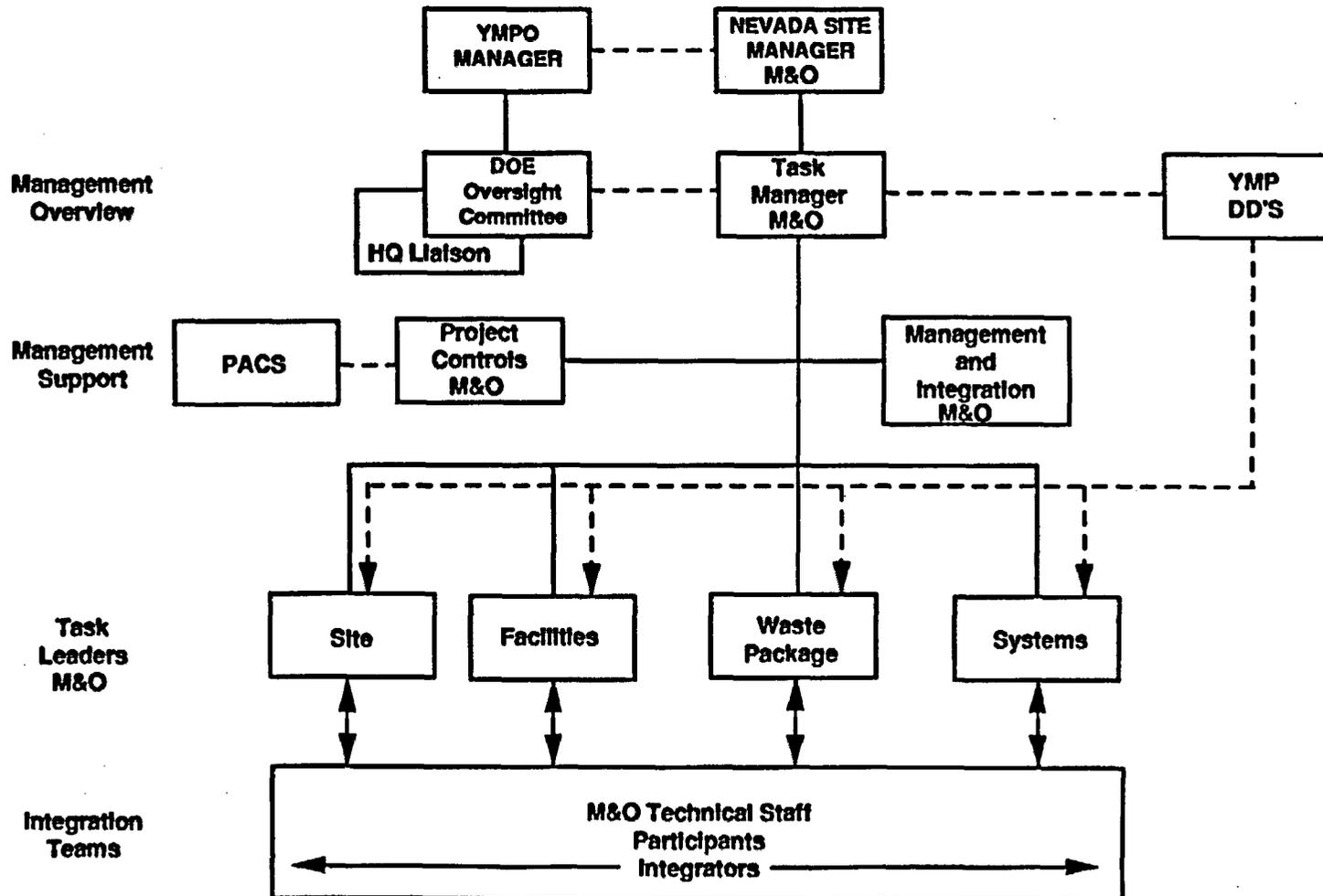
Following the cut-off for Mission 2001 inputs, the individual schedules were integrated in PACS. The initial run surfaced more than 420 open ends in the network and a completion date in 2005. Schedule integration meetings were organized for each area over a two-week period. All participants involved in the area were invited to participate in the meeting. The integrated schedules were reviewed in detail by the group to ensure that predecessor and successor activities were correctly represented. All activities were reviewed to alleviate omissions and redundancies. This review unveiled numerous inconsistencies in the logic of the network schedule. Slowly and methodically, the open ends were resolved and the schedule was integrated. The schedule completion date varied from October 2001, out to 2008. In some cases, work-arounds were developed to bring the schedule back in line. The final step of the schedule integration was to review the overall network to determine when environmental activities were required to obtain permits to support the schedule. The ultimate result was a fully integrated schedule, with license application on October 30, 2001, and with ownership by all participants, CRWMS M&O, and the DOE.

The next step was to review the cost estimates. The CRWMS M&O reviewed each estimate to eliminate duplications, correct input errors, and challenge the reasonableness of the estimates. The CRWMS M&O looked first at its own estimates in a rigorous, tops-down review. This effort resulted in substantial cost reductions. The CRWMS M&O then reviewed the estimates prepared by the participants. Several cost reductions were accomplished, through corrections of input errors and duplications in scope of work, and through negotiations. The DOE Senior Management, Division Directors, and Branch Chiefs were instrumental in supporting this effort. Attachment III.2 tabulates the chronology of the budget development.

**Civilian Radioactive Waste  
Management System**

**Management & Operating  
Contractor**

# MISSION 2001 Task Team Organization



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ATTACHMENT III.1

**COMPARISON OF YMP TOTAL PROJECT COST ESTIMATES**  
UNESCALATED \$K

24-Sep-92

WBS		ESAAB 01/92	PACS 04/92	ICE PHASE II 08/92	2001 08/92	2001 09/92
1.2.1	SYSTEMS	439,524	540,595	453,284	505,583	470,073
1.2.2	WASTE PACKAGE	273,119	335,865	344,550	318,430	296,718
1.2.3	SITE	1,113,392	1,047,632	1,140,622	1,205,230	1,126,566
1.2.4	REPOSITORY	450,956	850,484	732,001	725,601	599,622
1.2.5	REGULATORY AND INSTITUTIONAL	382,058	403,259	413,308	446,038	424,032
1.2.6	ESF	802,813	797,236	780,898	723,250	697,890
1.2.7	TEST FACILITIES	313,470	301,755	349,470	329,422	297,419
1.2.8	LAND ACQUISITION	3,514	3,226	3,226	4,328	4,328
1.2.9	PROJECT MANAGEMENT	1,003,280	955,300	821,393	1,039,321	892,406
1.2.10	F&TA	903,165	727,072	489,831	731,600	657,785
<b>TOTAL PROJECT COST</b>	<b>UNESCALATED</b>	<b>5,685,291</b>	<b>5,962,424</b>	<b>5,528,583</b>	<b>6,028,803</b>	<b>5,466,839</b>
<b>TOTAL PROJECT COST</b>	<b>ESCALATED</b>	<b>6,319,337</b>	<b>6,856,573</b>	<b>6,284,000</b>	<b>6,874,797</b>	<b>6,103,250</b>

All cost estimates include capital, operating and prior spending.

ESAAB baseline, December 1991.

ESAAB has contingency for ESF Construction only, ICE has contingency for all 3rd level cost elements, PACS and 2001 do not include contingency.

Estimate To Compete is FY93 through LA less F&TA.

F&TA -

ESAAB - Includes: 10% for grants, cooperative agreements, and impact assistance; PETT; and \$50M (93-2001) for benefits agreement.

APRIL PACS - Includes: 10% for grants, cooperative agreements, and impact assistance; PETT; and \$25M (94-2001) for benefits agreement.

ICE PHASE II - 94-2001 includes 10% for grants, cooperative agreements, and impact assistance; PETT; excludes \$200M benefits agreement.

FY93 includes \$8.5M for county grants; 2.5% for state grant; PETT; excludes 2% impact assistance.

2001 - Same as April 1992 PACS.

## **IV. BUDGET REPORT**

The Mission 2001 budget details are presented in Attachment IV.1. These estimates represent the current agreements made with the YMPO Division Directors regarding budget reductions. All reductions have not been loaded in PACS; however, this effort is ongoing.

The following paragraphs highlight the results of the Mission 2001 budget reduction effort. WBS element numbers precede each of the following subheaded paragraphs.

### **WBS Element 1.2.1--Systems**

The tops-down review of the estimates resulted in a cost reduction in management and integration and in systems engineering. These reductions were primarily in CRWMS M&O and T&MSS. There were scope and cost reductions in Performance Assessment activities by Sandia National Laboratories (SNL).

### **WBS Element 1.2.2--Waste Package**

A detailed review of the scope of work along with a tops-down estimate review resulted in cost reductions in CRWMS M&O and Lawrence Livermore National Laboratory (LLNL).

### **WBS Element 1.2.3--Site**

The dual objectives of cost reduction and reprioritization of site characterization activities were accomplished in cooperation with the participants and DOE. A new summary schedule for the site investigation program highlights the iterative structure of site characterization, with time-phased consolidation points established to support high-level milestones and performance assessment cycles. Significant unfunded missions were identified in the original baseline, such as all activities associated with Calico Hills testing in the ESF (primary barrier); therefore, budget allocation had to be included in the Mission 2001 plan, increasing the overall cost. The costs for the Sample Management Facility increased significantly from the ESAAB baseline; therefore, a management review will be conducted to validate its role and required costs. Other additional activities were identified in the course of the Mission 2001 validation, such as periodic report input into the Annotated Outline and Site Evaluation Analysis reports required for Performance Assessment; therefore, funding was included for these activities.

### **WBS Element 1.2.4--Repository**

A detailed scrub of the scope and estimates resulted in a substantial reduction in cost for the design of the repository. Costs for sealing the boreholes were increased. A high potential reduction in scope was identified as elimination of Waste Handling Building No. 1. This reduction could potentially save approximately \$20M in design costs. Waste Handling Building No. 1 was not deleted as a part of Mission 2001, since this facility is included in the baseline. During the budgeting exercise, it was noted that the ESAAB baseline was missing a significant amount of engineering and design. The bottoms-up estimate corrected this discrepancy, resulting in a substantial increased cost.

### **WBS Element 1.2.5--Regulatory and Institutional**

Regulatory costs were reduced due to estimate scrubbing. The primary area of cost reduction was in CRWMS M&O. Environmental costs increased from the ESAAB baseline value due to an increased level of monitoring activities associated with additional compliance, permits, reclamation and mitigation requirements, and the greater amount of surface-disturbing work associated with the ESF ramp concept.

### **WBS Element 1.2.6--Exploratory Studies Facility**

Cost reductions resulted both from scope and estimate reviews. One specific example was utilizing a different approach to the design, procurement and installation of the Integrated Data System. The estimate for the ESF construction was modified to reflect the Title I engineering cost estimate.

### **WBS Element 1.2.7--Test Facilities**

Detailed review of the scope and estimates resulted in significant cost reductions. The reductions more than offset a cost increase for the major electric power projects which are needed to support ESF construction.

### **WBS Element 1.2.9--Project Management**

Detailed review of the scope and estimates resulted in significant cost reductions. Quality Assurance identified substantial scope reductions and activities that were shown in the project budget instead of in the program budget. This correction will be made soon, and is reflected in the budget numbers contained in this report. Project Controls and Project Management estimates were reduced through a tops-down review. The reduction from the ESAAB baseline resulted in a reevaluation of the effort required for project management. The ESAAB baseline did not represent a proportionate decrease in the amount of effort when the other activities decrease in later years.

### **WBS Element 1.2.10--Financial/Technical Assistance**

A significant decrease was realized due to a revision to the calculated value for Financial/Technical Assistance.

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(YEAR OF EXPENDITURE \$M)

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- Estimate to Complete FY93 to 2001 (Less F&TA) is \$4261.6M.

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ATTACHMENT IV.1

## V. SCHEDULE REPORT

A fully integrated summary schedule is included in this section. This schedule is the result of an extensive effort by all participants, DOE, and CRWMS M&O to develop a logical network of activities to support license application.

Highlights of the schedule integration meetings are presented in the following paragraphs. Because WBS 1.2.1, 1.2.8, and 1.2.9 are level-of-effort activities, they did not require schedule integration.

### **WBS Element 1.2.1--Systems**

The schedule integration meeting for Performance Assessment included representatives from Lawrence Livermore National Laboratory (LLNL), Sandia National Laboratories (SNL), and the CRWMS M&O. Adjustments were made to the start and finish dates of activities to support site characterization. Activities were added to the schedule for preclosure radiological safety assessments.

### **WBS Element 1.2.2--Waste Package**

The Waste Package Design schedules were integrated with LLNL, Reynolds Electrical & Engineering Co., Inc. (REECo), and the CRWMS M&O. Activities, durations, and tie-ins were reviewed and cross checked to ensure consistency. Modifications were required to eliminate tasks associated with performance confirmation which did not directly support license application. Modifications were also required to integrate the review and issuance of test and model development reports from LLNL.

### **WBS Element 1.2.3--Site**

The goal of deriving an integrated plan for site characterization focused on developing a License Application by the year 2001, which required coordination among some 3,000 activities and some 15 different participant organizations. To achieve this goal, a master plan and schedule was required before initiation of any activity. Pursuant to this, a summary schedule was developed prior to initiation of the Mission 2001 activity review. The schedule was derived by CRWMS M&O, DOE, and USGS management, and was presented to all participants' technical management for guidance in the subsequent planning exercise. The schedule provides regular intervals at which the state of knowledge regarding the site is compiled and reviewed. To integrate the broad site investigation study schedules of various investigators, these compilations are to be disseminated among all program participants and used to develop individual detailed study planning on an annual basis. During the course of the Mission 2001 planning, the summary schedule was adjusted as necessary to accommodate specific activities of the various participants. The resulting modifications were coordinated among all participants during this process. At the final schedule integration meeting with all participants represented, the remaining details of schedule coordination were finalized and the result was loaded into the PACS system as the integrated schedule for all project activities.

#### **WBS Element 1.2.4--Repository**

The schedule integration meeting for the Repository included participation by SNL, REECo, and M&O personnel. The primary result of this review was correction of the sequencing of activities.

#### **WBS Element 1.2.5--Regulatory and Institutional**

The schedule integration meeting for Regulatory was attended by Technical & Management Support Services (T&MSS), REECo, LLNL, and CRWMS M&O representatives. Several logic revisions were made to support the development of the License Application Annotated Outline. Logical ties between technical reports and revisions to the Annotated Outline were deleted to avoid an incorrect representation of the critical path for license application.

The participants' Environmental activities schedules were internally integrated prior to integration with the other project elements. Once the Site, ESF, and Surface Facilities schedules were developed, the participants involved in the Environmental support effort met to integrate the preactivity survey and permits schedule with these activities. A standard time period for preactivity surveys per borehole and field activity was developed and added to the integrated schedule. The summary schedule presents the long-term monitoring required to support Environmental Impact Statement requirements.

#### **WBS Element 1.2.6--Exploratory Studies Facility**

The primary participants in the ESF schedule review were Raytheon Services Nevada (RSN), REECo, and CRWMS M&O. The review team discovered that there were no logic ties from design to construction activities. The team worked together to correct this problem.

#### **WBS Element 1.2.7--Test Facilities**

RSN, REECo, T&MSS, and CRWMS M&O personnel worked together to integrate the Test Facilities schedule. A problem was identified with the permanent electrical power upgrades being completed beyond the need date for the third and fourth tunnel-boring machines. A work-around solution was developed which will require the installation of portable generators and support facilities to provide power in the interim period until the permanent power is available.

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**"SUMMARY SCHEDULE (PCSB REV 3 -  
4/SEP/92) "**

**WITHIN THIS PACKAGE**

**NOTE: Because of these page's large file size, it may be more convenient to copy the file to a local drive and use the Imaging (Wang) viewer, which can be accessed from the Programs/Accessories menu.**

**D-01**

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**D-05**

## VI. FUTURE ACTIVITIES

The U.S. Office of Management and the Budget (OMB) funding pass backs for FY 1993 and FY 1994 should be received by November 1992. Based upon this information, what-if scenarios will be run to analyze the impact of this funding on the Mission 2001 plan. This analysis will result in a restructured plan which will be formally baselined. At that time, the budget, schedule, and scope will be placed under configuration change control through the Configuration Control Board. Attachment VI.1 presents a flowchart of the baseline process.

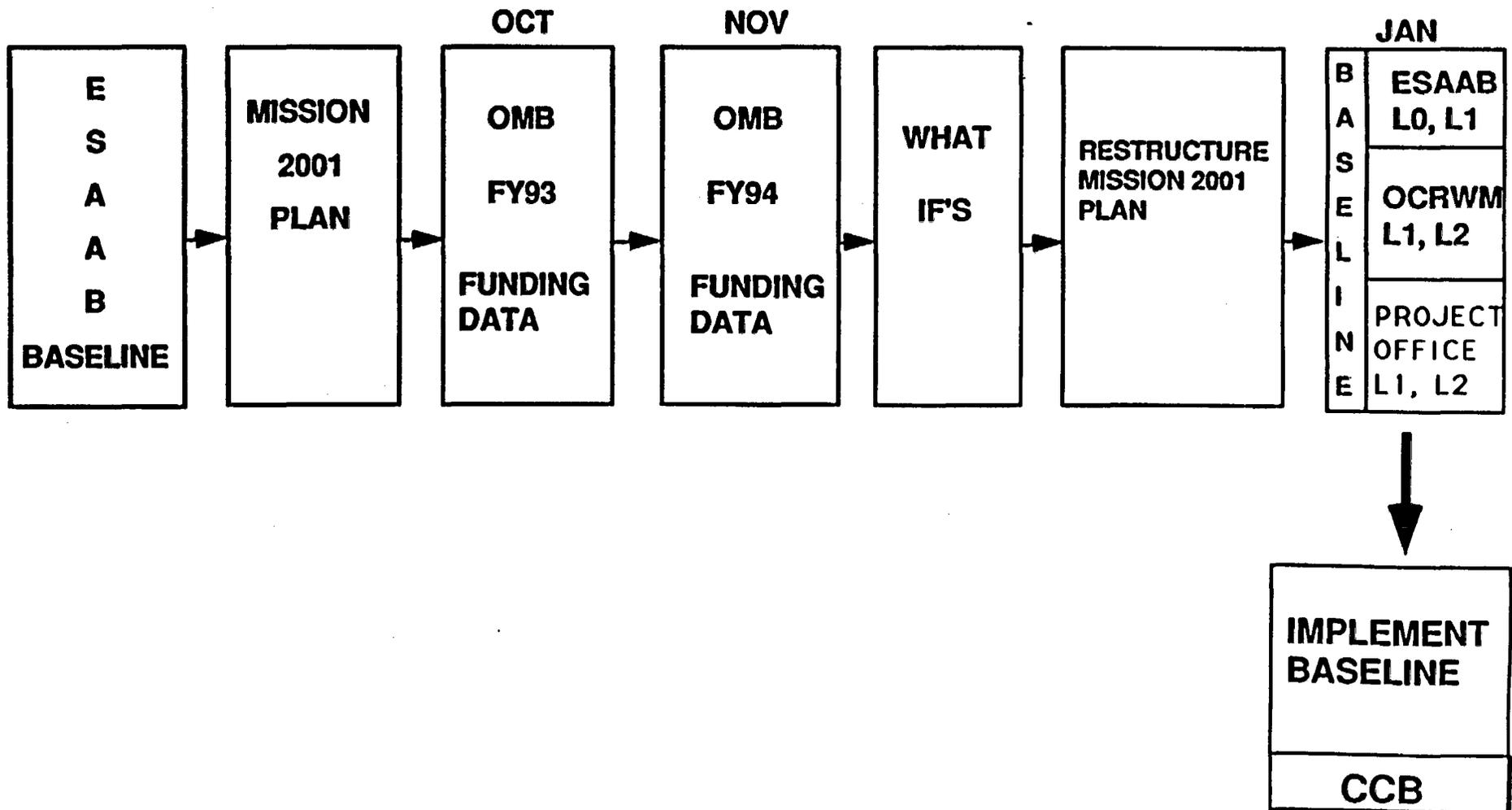
CRWMS M&O will continue to review the scope for additional cost reductions throughout the life of the project. Areas that are currently targeted are:

- The applicability of the types, quantities, and durations of tests to support license application.
- Requirements for Nevada Power upgrades to support third and fourth tunnel boring machines. This study would also include the temporary use of generators before completion of these upgrades.
- Waste-package-handling building requirements will be analyzed to determine the need for two waste-handling buildings, rod consolidation, etc.

**Civilian Radioactive Waste  
Management System**

**Management & Operating  
Contractor**

# BASELINE PLAN



-19-

ATTACHMENT VI.1

**APPENDIX A**

---

**MISSION 2001**

**DETAILED PLANNING**

**GUIDELINES**

## Mission 2001 Planning for Detailed Validation

April 27, 1992

The director of OCRWM, Dr. Bartlett, has approved an OCRWM Multiyear Program Plan (MYPP) for 1993 - 1997, and has submitted a Mission Plan Amendment (MPA) to the Secretary of DOE. Both these plans contain an aggressive YMP schedule that is critically dependent on substantial funding increases beginning in FY94 to support repository license application in October 2001. YMP has been directed to replan the Long Range Plan (LRP) to meet this schedule. The scope of the replanning is threefold: 1) to validate the scope, schedule, and cost estimate of "Mission 2001" as presented by Carl Gertz to OCRWM on February 3, 1992. Mr. Gertz's presentation addressed the question "License Application 2001 - Can it still be done?" The validation process will involve reviewing all Planning and Control System (PACS) planning information (scope, schedule, and budget) and updating or estimating work items as required. 2) To provide support to the ICE team's review of the Project Plan by providing them with an intermediate release of the plan and keeping them informed of how the plan is changing. 3) To incorporate the ICE Review comments into PACS and develop a new Performance Measurement Baseline (PMB). These planning guidelines apply specifically to Mission 2001, but incorporate the other two items in the schedule and execution. (See Attachment I.)

The validation process will involve a concentrated effort to meet the tight schedule which is constrained by the requirements to produce and ICE approved PMB prior to the FY94 Office of Management and Budget (OMB) submittal in August 1992. A work activity schedule (See Attachment II) is attached that includes the planning activities between now and the end of this update.

### PLANNING ASSUMPTIONS

The major assumptions for the replanning are to submit a repository license application on 30 OCT 01 and use the FY93 funding level set in the FY93 Congressional Budget Request (\$243 million), plus the proposed FY93 Supplemental Request (\$75 million). The supplemental request allows for tunneling equipment to be procured a year earlier than previously scheduled, which provides for the subsurface excavation and testing to be also started earlier. The old, or current, WBS will be used for this replanning effort. Each participant will review their level of detail in their schedule to allow for a more consistent and manageable schedule.

The data from the FY92 planning cycle completed in March and updated in April will be down loaded from the VAX PACS Database to your local workstation to be used as the starting point for cost/budget and schedule data. The FY93 budget splits will be finalized in about three weeks (see Attachment III). The workstation software and PACS data will be installed during the week of 4 May 92. Each participant will provide the M&O with a schedule to complete their schedule/cost modification.

## ORGANIZATION

In order to meet these deadlines we must organize our work carefully and avoid false starts. A Task Team Leader has been assigned to each functional area to coordinate the effort with each participant and to address technical concerns. The Task Team Leaders are responsible for coordinating all planning and scheduling data and to work with the participants to develop strategies to accomplish all work necessary to submit License Application in 2001. The Task Leader is responsible to coordinate with, get guidance from, and provide status to the YMP Division Directors during this exercise. An integrator has been assigned to interface between participants. The integrator will be available to coordinate all scheduling where inter-participant dependencies occur. In addition, a Project Control person has been assigned to each participant to help with the mechanics of planning and scheduling. The project control personnel are to provide help to the participants in "process" related activities. They will work with the participant planning and scheduling personnel. They will address questions related to workstation operation, help with interpretation of the instructions and steps to complete this exercise, and help with the planning for the execution of this activity. If a participant requires data input help, please contact Dave Abel in Las Vegas to arrange for assistance. (See Attachment IV.)

## WORKSCOPES AND BUDGETS

Workscopes and budgets for FY93 are to be reworked at the summary account level to meet the 1993 Funding Guidelines (attached). This may require changes from small adjustments to new bottoms-up efforts. Questions concerning the FY93 workscopes and budgets should be discussed with the task leader. FY93 budgets must be input on a monthly basis. FY94 workscopes and budgets should also be separated from the outyears with workscopes and budgets reworked at the summary account level. FY95 and outyears will be planned and budgeted at the Planning Package Summary Account level. (The workscopes and budgets will be organized at the same level as the FY92 PACS update.) This data will be entered into the workstations by the participants.

Data entered into the workstation databases will be uploaded to the VAX PACS computer twice a week, where the data will be validated. Transaction reports will be available to the Task Leader for review the following morning. If there are no problems or concerns the data will be loaded into the PACS database, if there are issues to be resolved the Task Leader will contact the respective participant. All discrepancies will be resolved between the Task Leader and the participant prior to being loaded into the VAX PACS Database in Las Vegas. Once all the data has been entered into the PACS database, integrated schedules and analysis reports will be distributed to the Task Manager and the participant for review.

The workstation uploads for workscopes and budgets will be done by 4:00 p.m. Las Vegas time each Monday and Wednesday.

## SCHEDULE

The process for rescheduling is outlined below:

- 1 - Review participant's FY92 LRP/IPS against "Mission 2001 Planning guidelines"
- 2 - Reschedule studies, testing, design, etc., against proposed guidelines
- 3 - Update participant's schedule using Primavera
- 4 - Upload schedule to T&MSS (Las Vegas)
- 5 - Task Team Leader reviews schedule
- 6 - Schedule is uploaded to PACS
- 7 - Participant's schedules are integrated (PACS)
- 8 - Scheduling conflicts are resolved (Integrators, participants, task team leaders)

The proposed "Mission 2001" guidelines are attached which include most of the current level 0 and 1 milestones. The current level 0 and 1 milestones have new dates but the descriptions and completion criteria have not been changed.

During this schedule analysis, activities should be reworked, as necessary, to meet the new "2001" guideline dates with particular attention paid to the critical path activities. Confirm the network logic representing the dependencies between all activities. FY93 budgets are fixed at \$243M plus \$75M to get underground earlier and the FY93 tasks must be considered when examining the critical path. Each participant should review their existing Level 2 milestones in conjunction with the proposed "Mission 2001" guidelines to determine the validity and necessity of each milestone. All interface points between participants must be reviewed and modified as necessary. (See Attachment V.) Interfaces are treated as logical relationships and therefore rely on consistent activity IDS. If an existing LRP/IPS activity ID is changed which has an interface relationship, then PACS Schedule Transaction Log input forms must be submitted which identifies the old and new IDs. The M&O integrator is responsible for coordinating interface changes between participants and for submitting a PACS Schedule Transaction Log to Las Vegas. The transaction log data must be transmitted to Las Vegas before the participants schedule is uploaded. The Transaction Logs must identify the old and new ID's and must be submitted to add, modify or delete interface relationships. Do not include Level 2 Milestones that are the responsibility of any other participants, or any Level 0 or 1 Milestones. Do not schedule activities for the Level of Effort or Capital Equipment summary accounts. All participant schedules will be combined with the level 0 and 1 milestones and interface relationships to form the Long Range Plan/Integrated Project Schedule (LRP/IPS).

## INTEGRATION

All participants will have Workstations at their sites to interface with the VAX/PACS System. Changes to the schedule will be made by each participant using Primavera Project Planner

(P3) and then exported via ASCII files to PACS where the schedule will be pre-processed prior to being integrated onto the LRP/IPS. All participant schedules will be combined into an Integrated Project Schedule (LRP/IPS) on the PACS system, at which level 0 and 1 milestones and interface relationships will be added.

All schedule changes will be submitted via the workstations to the VAX PACS computer no later than June 19, 1992. Once all the data has been entered into the PACS database, integrated schedules and analysis reports will be distributed to the Task Managers and the Participants for review.

### **BASIS OF ESTIMATE (BOE)**

A basis of estimate is required to provide information for understanding the cost estimate and schedule. It is to be completed at the P&S Account level. See Attachment V and example format (see Attachment VII).

### **ATTACHMENTS**

1. Mission 2001 Guidelines
2. Schedule
3. FY93 Planning Process
4. Organization Matrix
5. Interface Report
6. Guidelines for BOE
7. BOE Example Format

**ATTACHMENT 1**

**MISSION 2001 GUIDELINES**

NUMBER: BT00AR1  
 PROJECT: HIGHVL1  
 TIME NOW: 01OCT91  
 DATE: 01OCT91  
 NAME: ROMAYOR  
 PAGE: 1

## PROPOSED MISSION 2001 MILESTONES

CRWMS M & O

ACTIVITY	TASKS	DATES	01	01	01	01	01	01	01	01	01	01
			JAN 92	JAN 93	JAN 94	JAN 95	JAN 96	JAN 97	JAN 98	JAN 99	JAN 00	JAN 01
<b>LEVEL ZERO MILESTONES</b>												
RN430	START REPOSITORY ACD	01OCT92	Δ									
RM233	START WASTE PACKAGE ACD	01OCT92	Δ									
RM652	START ESF COLLAR/PORTAL CONSTRUCTION	04OCT93		Δ								
RM458	START REPOSITORY LAD	03JUN96					Δ					
R6610	START ESF IN-SITU TEST PHASE	03JUN96					Δ					
RT074	START WASTE PACKAGE LAD	03JUN96					Δ					
R5181	SUBMIT LICENSE APPL TO THE NRC	30OCT01										Δ
<b>LEVEL ONE MILESTONES</b>												
RM645	START ESF SITE PREPARATION	30NOV92	Δ									
MS1830	COMPLETE ESF SITE CHAR DESIGN DATA ACD	31JAN94			Δ							
MS725	COMPLETE RAMP/DRIFTING DESIGN	01AUG94			Δ							
MS1000	START RAMP/DRIFTING CONSTRUCTION	03OCT94			Δ							
MS800	COMPLETE REPOSITORY ACD	30OCT95				Δ						
MS1020	COMPLETE WASTE PKG ACD DRAFT REPORT	31OCT95				Δ						
MS820	COMPLETE ACD PERFORMANCE ASSESSMENT	01JUL96					Δ					
R5108	ISSUE REPOSITORY EIS NOTICE OF INTENT	02JUN97						Δ				
MS1840	COMPLETE REPOS SITE CHAR DSGN DATA ACD	02JAN98							Δ			
R5142	ISSUE MGOS EIS IMPLEMENTATION PLAN	02MAR98								Δ		
MS1810	COMPLETE HYDROLOGIC SITE CHAR FOR LAD	29JAN99									Δ	
MS1800	COMPLETE GEOLOGICAL SITE CHAR FOR LAD	30JUN99										Δ
R5151	ISSUE DRAFT ENVIRON IMPACT STATEMENT	30SEP99										Δ
R5210	NOTIFY STATE OF PROPOSED SITE SELECTION	01NOV99										Δ
MS1820	COMPLETE GEOCHEMISTRY SITE CHAR FOR LAD	31DEC99										Δ
R5220	NOTIFY STATE OF SITE SELECTION	30MAR01										Δ
R5161	ISSUE FINAL ENVIRON IMPACT STATEMENT	30MAR01										Δ
MS500	COMPLETE TOTAL SYSTEM PA FOR LA	30MAR01										Δ
MS840	COMPLETE REPOSITORY LAD	30MAR01										Δ

■ - In progress  
 □ - Planned  
 ▨ - Critical

Report: STD001  
 Project: HIGHLEVEL  
 Time Now: 01OCT91  
 Date: REMAY91  
 Page: 2

## PROPOSED MISSION 2001 MILESTONES

CRWMS M & O

ACTIVITY	TASKS	DATES	01	01	01	01	01	01	01	01	01	
			JAN 92	JAN 93	JAN 94	JAN 95	JAN 96	JAN 97	JAN 98	JAN 99	JAN 00	JAN 01
MS860	COMPLETE WASTE PACKAGE LAD	30MAR01										
RS200	ISSUE SITE RECOMMOTN REPRT TO PRESIDENT	30APR01										Δ
RS190	ISSUE RECORD OF DECISION	30APR01										Δ
<b>PROPOSED LEVEL 2 MILESTONES (MISSION 2001 PLAN)</b>												
MS100	START NEW SBT (DRILLING)	01OCT91										
RS102	OBTAIN PERMITS	02JAN92										
MS300	INITIATE TBM POWER PROCUREMENT	01OCT92		Δ								
MS850	START ESF SIZING STUDY	01OCT92		Δ								
MS400	START FIRST ACCESS	02NOV92		Δ								
MS875	COMPLETE TBM SPECS	01DEC92		Δ								
MS700	ISSUE TBM RFP	01FEB93		Δ								
MS920	INITIATE WASTE PACKAGE MATERIAL TEST	01FEB94			Δ							
MS750	SELECT FINAL CONCEPTS FROM TRADE STUDIES	30JUN94				Δ						
MS775	DELIVERY OF TBM	05JUL94				Δ						
MS1260	START HEATER TEST PROTOTYPE	03OCT94				Δ						
MS980	CONFIRM MTL HORIZON	01DEC94				Δ						
MS1320	RAMP/SOIL DATA	26DEC94				Δ						
MS1220	START PERFORMANCE ASSESSMENT FOR ACD	03JAN95				Δ						
RP509	COMPL DEEP UNSAT ZONE HYDROL HOLE DRILLG	30JUN95					Δ					
MS1240	WP/EBS PERF ASSESS MODEL COMPL FOR ACD	30JUN95					Δ					
RR569	COMPLETE ESF SHAFT CONNECTION	11SEP95					Δ					
RM658	COMPLETE RAMP/DRIFTING CONSTRUCTION	05JUL96						Δ				
MS1200	INTERIM MATERIAL DATA	30SEP96						Δ				
MS1180	FINAL WASTE PACKAGE CONCEPT	02JAN97							Δ			
MS200	COMPLETE DRILLING PROGRAM	02MAR98								Δ		
RS201	PROVIDE ENGRNG BARRIER SYS DATA-WP LAD	30JUL98									Δ	
MS1250	COMPLETE WP/EBS PERFORMNCE MODL FOR LAD	29JAN99										Δ
MS1280	COMPLETE HEATER TEST PROTOTYPE	31AUG99										Δ
MS900	COMPL WASTE PKG MATL TESTING FOR LAD	30SEP99										Δ
MS1160	START PERFORMANCE ASSESSMENT LAD	01OCT99										Δ
MS880	IN-SITU TEST DATA FOR	31DEC99										Δ

-In progress  
 -Planned  
 -Critical

REPORT: ST02001  
 PROJECT: HIGH/LVL 3  
 TIME NOW: 01OCT91  
 DATE: 01OCT91  
 PAGE: 2

## PROPOSED MISSION 2001 MILESTONES

CRWMS M & O

ACTIVITY	TASKS	DATES	01	01	01	01	01	01	01	01	01	01	01
			JAN 92	JAN 93	JAN 94	JAN 95	JAN 96	JAN 97	JAN 98	JAN 99	JAN 00	JAN 01	
MS940	FREEZE WASTE PKG LAD FOR PERF ASSESSMNT	31DEC99											
MS960	FREEZE REPOS LAD FOR PERFORM ASSESSMENT	31DEC99											
MS1100	REQUEST NRC COMMENTS ON SUFFICIENCY	30MAR00											▲
MS1120	REQUEST CERTIFICATION FROM LSS ADMIN	01MAY00											▲
MS600	LA/SAR PERF ASSESSMNT	01MAR01											
MS1140	RECEIVE NRC COMMENTS ON SUFFICIENCY	30MAR01											▲
MS1040	PRESIDENT SUBMIT RECOMMENDATION TO CONGR	01MAY01											▲
MS1060	RECEIVE CERTIFICATION FROM LSS ADMINSTR	01MAY01											▲
MS1080	CONGRESS PASSES RESOLUTION OF SITE APPR	28SEP01											▲

- In progress  
 - Planned  
 - Critical

**ATTACHMENT 2**

**SCHEDULE**

# SCHEDULE FOR UPDATING PACS DATA

	13MAR92	27MAR92	10APR92	24APR92	08MAY92	22MAY92	05JUN92	19JUN92
WEEKLY REVIEWS		▲	▲	▲	△	△	△	△
DEFINE TEAM AND ORGANIZATION	■							
PREP HIGH LEVEL SCHED WITH KEY MLSTNS	■							
DEFINE SPECS-LEVEL/FORMAT FOR B/L INPUT	■							
EXPAND HIGH LEVEL SCHED & DEFINE RESP		■						
ASSIGN WORK RESPONSIBILITIES			■					
FY93 THIRD LEVEL SPLIT			▲					
CONDUCT PARTICIPANT WORKING MEETINGS			□					
PARTICIPANTS PREP INPUT TO PACS			□	□	□			
M & O COORD INPUT TO PACS-SCHED/BUDG					□	□		
LOAD DATA INTO PACS					□	□		
RECEIVE PACS OUTPUT FOR REVIEW						□		
REVISE/REFINE PACS B/L DATA						□	□	
SUBMIT REVISED PACS PLANNING TO ICE							□	□

**ATTACHMENT 3**

**FY-93 PLANNING PROCESS**

## FY'93 PLANNING PROCESS

- MTG PM/DPM on project assumptions & priorities. (4/28/92)
- P/C Integration review current FY'93 Summary Schedule Activities. (5/1/91)
- Division Director's validate assumption and priorities assume the \$318M case. Set for each WBS element, which produced the initial 1993 splits by participants. (5/1/92)
- M&O distribute funding profile 3rd-level IRB numbers to the Division Director's. (5/1/92)
- M&O funding profile per Division Director/WBS/Participant down to the lowest level that currently exists. (5/1/92)
- M&O develop budget workscope for each Division Director and at the 4th-level of WBS. Brief explanation of what is to be done. (5/1/92)
- Division Directors to ensure that: (5/8-12/92)
  - \$'s are distributed correctly.
  - Sufficient \$ to meet the priority and the program priorities and objectives for each WBS element.
  - Develop the Basis of Estimate?
  - Identify any potential problem areas for this work.
  - What are the work-arounds if any?
  - If not sufficient funding, what will not be done?
- Division Director's to present proposed budget and open issues to Max Blanchard for resolutions. (5/12/92)
- PCM/DM brief Carl as to the issues resolution and to solve an open issue that exists. (5/15/92)
- PCM prepares draft guidance to participants includes work/schedule/\$. (5/18/92)
- TPO's to develop Internal Budgets at the summary account level based on targets and worksopes associated with FY'93 assumptions and priorities.
- TPO's consult with Division Director's on items for issue resolution based on total dollar amounts and workscope requirements. Can everything be accomplished with the available \$?
- TPO's brief PM/DM/DD on their proposed program and present items for reconciliation. Provide Basis of Estimate of how the costs were developed. (5/27/92)
- PCM issues final FY93 guidance via TDL to participants on Workslope/schedule/\$ assumptions and priorities. (5/29/92)
- Participants submit to PAC's for input to the PO. (6/12/92)
- Project Control produce work authorization for DOE/Participants for signature and approval. (6/26/92)
- Baseline FY'93 C/S/W. (9/15/92)

**ATTACHMENT 4**

**ORGANIZATION MATRIX**

**Civilian Radioactive Waste Management System**

Management & Operating Contractor

**MISSION 2001  
Task Team Key Personnel**

**Task Team Manager: J. K. Clark**

**DOE Oversight Committee: M. Brodsky, J. Replogle, D. Williams, K. Grassmeier**

PACS CONTACT	
WBS	Name
1.2.1	S. Simms
1.2.2	M. Mogilefsky
1.2.3	C. Ahlert
1.2.4	M. Mogilefsky
1.2.5	T. Fischer
1.2.6	E. Rodriguez
1.2.7	E. Rodriguez
1.2.9	T. Fischer

AREA	SITE	FACILITIES	WASTE PACKAGE	SYSTEMS	M&I	PROGRAM CONTROL	
WBS	1.2.3, 1.2.5, 2.5	1.2.4, 1.2.6, 1.2.7	1.2.2	1.2.1, 3.8, 4, 1.2.5	1.2.1, 1.8, 2 1.2.9.1 & 3	1.2.9.2	
<b>Task Leader</b>	C. T. Statton	P. W. McKie	H. A. Benton	J. L. Younker	S. A. Bodnar	D. B. Abel	
<b>Technical Staff</b>	M. Pendleton	D. McKenzie	D. Stahl	J. Gauthier	B. Hurst	B. Hurst	
	R. Quttmeier	K. Bhattacharyya	T. Doering	A. Van Luik	R. Justice	J. Arnold	
	R. Rogers	A. Watkins	R. Fish	M. Weaver		M. Kepler	
	R. Datta	W. Wade		H. Hartman			
	J. Agnew	J. Boyer		N. Jones			
	C. Johnson	J. Fredrickson					
	B. Distel	J. Taipale					
		R. Whiton					
		R. McDonald					
		H. Dokuzoguz					
<b>Integrator</b>	<b>Participants</b>						
S. Bodnar	T&MSS	J. Peck	R. Adams		E. McCann	S. Horton	Fisher/Michaels
H. Dokuzoguz	SNL	T. Blejwas	L. Costin		F. Bingham	S. Sharpton	S. Sharpton
F. Bupp	LLNL	J. Blink/D. Wilder		W. Clarke	J. Blink	J. Blink	J. Podobnik
L. Engwall	LANL	Springer	Kafia		Canepa	Canepa	West
R. St. Clair	USGS	L. Hay			Hayes	Hayes	Ritchey
D. McKenzie	RSN	J. Calovini	J. Calovini			J. Calovini	Rodriguez
J. Boyer	REECo	Gardella	Gardella			Hughes	Hughes
	Other			J. Blink			
D. Schutt	M&O			J. Podobnik			
	<b>Integrator</b>	R. St. Clair	F. Bupp	F. Bupp	A. Brandstetter	B. Cruz	B. Cruz
			A. Hahn		R. St. Clair		
	<b>YMP Mgmt.</b>	R. Dyer	W. Simecka	W. Simecka	R. Dyer	V. Ioni	V Ioni
		W. Wilson			W. Dixon	W Simecka	

**ATTACHMENT 5**

**INTERFACE REPORT**

DATE -SEP-92  
 DATAB - SCHED  
 DOLLAR AMOUNTS IN THOUSANDS

YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT  
 PACS ACTIVITY IN PLACE LOGIC REPORT  
 REPORT NUMBER - SCH02

REPORT TO RIGD  
 PAGE - 1

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0L241AWX	REVIEW REVISE AND APPROVE WP ACD REPORT	108	241	TR	09-mar-98	07-aug-98	12-mar-98	12-aug-98	0	3	
M263	PREDECESSOR ACTIVITIES ISSUE REPORT OF WASTE PKG PA for ACD	REL LAG FF 0	0	142	0L	01-jul-96	28-jun-96	13-aug-98	12-aug-98	550	553
R2201	PROVIDE ENGINEERED BARRIER SYSTEM DATA T O WP LAD	REL LAG FF 0	0	224	YY	10-aug-98	07-aug-98	13-aug-98	12-aug-98	0	3
0L241BBH	CONDUCT WP LAD	165	241	TR	06-jun-96	05-feb-97	23-nov-99	24-jul-00	865	868	
RT074	PREDECESSOR ACTIVITIES START WASTE PACKAGE LAD	REL LAG FS 0	0	241	YY	06-jun-96	05-jun-96	19-oct-99	18-oct-99	0	843
0L241BBX	REVIEW REVISE AND APPROVE WP LAD REPORT	132	241	TR	14-jan-00	19-jul-00	19-jan-00	24-jul-00	0	3	
M275	SUCCESSOR ACTIVITIES WP LICENSE APPLICATION DESIGN RPT ISSUED	REL LAG FS 0	0	241	0L	20-jul-00	19-jul-00	31-oct-01	30-oct-01	181	334
0L241BFN	CONDUCT WP LAD	165	241	TR	20-jul-00	20-mar-01	25-jul-00	23-mar-01	0	3	
RT074	PREDECESSOR ACTIVITIES START WASTE PACKAGE LAD	REL LAG FS 0	0	241	YY	06-jun-96	05-jun-96	19-oct-99	18-oct-99	0	843
4232D15	DSN ANALYSIS UG VENT SYS F/INC INTO REP	249	423	TR	04-oct-93	30-sep-94	02-dec-94	30-nov-95	291	291	
R774	SUCCESSOR ACTIVITIES COMPLETE REPOSITORY ACD REPORT	REL LAG FS 0	0	41	0S	01-dec-95	30-nov-95	01-dec-95	30-nov-95	0	0
4232D55	MINE VENT DESIGN F/INC INTO LAD REPORT	248	423	TR	13-jan-98	08-jan-99	19-apr-00	16-apr-01	392	569	
4232D92	PREDECESSOR ACTIVITIES T/M ANALYSIS OF ESF OPENINGS	REL LAG FS 0	251	4232	0S	01-oct-91	01-oct-92	01-oct-91	01-oct-92	0	0
T123	SUCCESSOR ACTIVITIES COMPLETE REPOSITORY LAD REPORT	REL LAG FS 0	0	41	0S	31-jul-00	28-jul-00	17-apr-01	16-apr-01	267	177
M160	UPDATED SD FOR LAD SUBMITTED TO DOE/HQ	0	121	TR	04-oct-95	03-oct-95	14-may-97	13-may-97	104	401	
RM458	SUCCESSOR ACTIVITIES START REPOSITORY LAD	REL LAG FS 0	0	43	YY	08-mar-96	07-mar-96	14-may-97	13-may-97	0	297
M267	DRAFT WPDR COMPLETED f/LAD	0	241	TR	12-apr-94	11-apr-94	19-oct-99	18-oct-99	539	1382	
RT074	SUCCESSOR ACTIVITIES START WASTE PACKAGE LAD	REL LAG FS 0	0	241	YY	06-jun-96	05-jun-96	19-oct-99	18-oct-99	0	843



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MS1220	Activity Logic Continuation											
	PREDECESSOR ACTIVITIES											
					REL LAG							
32221AA	ANALYSIS AND REPORT FOR SD-1	FS	0	120	32221	OS	09-mar-94	25-aug-94	16-nov-95	13-may-96	464	427
32221AD	ANALYSIS AND REPORT FOR SD-4	FS	0	120	32221	OS	12-sep-95	07-mar-96	16-nov-95	13-may-96	84	47
32221AE	ANALYSIS AND REPORT FOR SD-5	FS	0	120	32221	OS	02-oct-95	27-mar-96	16-nov-95	13-may-96	70	33
32221AG	ANALYSIS AND REPORT FOR SD-7	FS	0	120	32221	OS	18-jan-96	05-jul-96	16-nov-95	13-may-96	0	-37
32222D1	LYNX MODEL DEVELOPMENT	FS	0	250	32222	OS	04-oct-93	03-oct-94	07-dec-94	06-dec-95	0	294
32222D4B	CREATE PRELIMINARY MODELS	FS	0	250	32222	OS	04-oct-93	03-oct-94	16-dec-94	15-dec-95	60	301
	SUCCESSOR ACTIVITIES											
32222D6B	MODELING TO SUPPORT ACD/PA DESIGN	FS	0	150	32222	OS	08-jul-96	13-feb-97	14-may-96	16-dec-96	0	-37
MS1250	COMPLETE WP/EBS PERFORMANCE MODEL FOR LAD											
				0	242	TR	30-sep-94	29-sep-94	31-oct-01	30-oct-01	1904	1771
	SUCCESSOR ACTIVITIES											
R5181	SUBMIT LICENSE APPLICATION TO NRC	FS	0	0	528	YY	16-may-02	15-may-02	31-oct-01	30-oct-01	0	-135
MS1800	COMPLETE GEOLOGICAL SITE CHAR FOR LAD											
				0	32	TR	03-sep-99	02-sep-99	31-oct-01	30-oct-01	0	540
	PREDECESSOR ACTIVITIES											
3GCR040	CONTINUE TO CHARACTERIZE REGIONAL CLIMAT E	FS	0	740	36211	OG	23-sep-96	02-sep-99	19-nov-98	30-oct-01	0	541
MS1830	COMPLETE ESF SITE CHAR DESIGN DATA ACQ											
				0	32	TR	31-jan-94	28-jan-94	10-sep-97	09-sep-97	86	906
	PREDECESSOR ACTIVITIES											
611D30	CONTINUE REVISING ESF REQ DOC	FS	0	251	611	OS	01-oct-91	01-oct-92	06-sep-96	09-sep-97	327	1233
MS200	COMPLETE DRILLING PROGRAM											
				0	33	TR	30-jan-98	29-jan-98	22-mar-99	19-mar-99	0	285
	PREDECESSOR ACTIVITIES											
OR35317I	SD-9	FS	0	115	353H	OR	07-oct-97	29-jan-98	06-oct-98	28-jan-99	0	364
	SUCCESSOR ACTIVITIES											
3GGU30AC	update 3-D geologic model	FF	125	884	32211	OG	20-jan-95	27-jul-98	12-mar-96	15-sep-99	0	286
MS800	COMPLETE REPOSITORY ACE											
				0	431	TR	30-oct-95	27-oct-95	07-aug-98	06-aug-98	167	692
	PREDECESSOR ACTIVITIES											
461D18	CONTINUE TO DEVELOP D.R. FOR ACD	FS	0	249	461	OS	04-oct-94	02-oct-95	19-dec-95	16-dec-96	0	302

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MS820	COMPLETE ACD PERFORMANCE ASSESSMENT	0	142	TR	25-mar-97	24-mar-97	17-dec-96	16-dec-96	0	-64
	PREDECESSOR ACTIVITIES			REL LAG						
32221AB	ANALYSIS AND REPORT FOR SD-2	FS	0	120 32221	OS	27-feb-96	14-aug-96	26-jun-96	16-dec-96	149 85
32221AF	ANALYSIS AND REPORT FOR SD-6	FS	0	120 32221	OS	26-sep-96	24-mar-97	26-jun-96	16-dec-96	0 -64
32221AH	ANALYSIS AND REPORT FOR SD-8	FF	0	120 32221	OS	01-may-96	18-oct-96	26-jun-96	16-dec-96	103 39
32221AJ	ANALYSIS AND REPORT FOR SD-10	FS	0	120 32221	OS	25-jun-96	13-dec-96	26-jun-96	16-dec-96	65 1
32221D5A	LAB MEASUREMENT OF RP	FF	0	249 32221	OS	03-oct-94	29-sep-95	19-dec-95	16-dec-96	367 303
32221D5B	EVALUATE DATA	FF	0	249 32221	OS	03-oct-94	29-sep-95	19-dec-95	16-dec-96	367 303
32222D2	LYNX MODEL DEVELOPMENT	FS	0	187 32222	OS	04-oct-94	05-jul-95	07-dec-95	05-sep-96	0 294
32222D5B	FINAL MODELS	FF	125	125 32222	OS	06-jan-95	30-jun-95	18-dec-95	18-jun-96	305 241
32222D6B	MODELING TO SUPPORT ACD/PA DESIGN	FF	0	150 32222	OS	08-jul-96	13-feb-97	14-may-96	16-dec-96	0 -37
32222D6C	SUPPORT SCRF	FS	0	249 32222	OS	22-aug-95	19-aug-96	19-dec-95	16-dec-96	146 82
461D18	CONTINUE TO DEVELOP D.R. FOR ACD	FS	0	249 461	OS	04-oct-94	02-oct-95	19-dec-95	16-dec-96	0 302
	SUCCESSOR ACTIVITIES			REL LAG						
32222D7B	MODELING TO SUPPORT PA DESIGN	FS	0	610 32222	OS	25-mar-97	27-aug-99	17-dec-96	27-may-99	0 -64
MS840	COMPLETE REPOSITORY LAD	0	450	TR	30-mar-01	29-mar-01	31-oct-01	30-oct-01	283	150
	PREDECESSOR ACTIVITIES			REL LAG						
M275	WP LICENSE APPLICATION DESIGN RPT ISSUED	FS	0	0 241	OL	20-jul-00	19-jul-00	31-oct-01	30-oct-01	181 334
	SUCCESSOR ACTIVITIES			REL LAG						
R5181	SUBMIT LICENSE APPLICATION TO NRC	FS	0	0 528	YY	16-may-02	15-may-02	31-oct-01	30-oct-01	0 -135
MS860	COMPLETE WASTE PACKAGE LAD	0	243	TR	30-mar-01	29-mar-01	31-oct-01	30-oct-01	283	150
	SUCCESSOR ACTIVITIES			REL LAG						
R5181	SUBMIT LICENSE APPLICATION TO NRC	FS	0	0 528	YY	16-may-02	15-may-02	31-oct-01	30-oct-01	0 -135
MS880	IN-SITU TEST DATA FOR PA/REPOS/WP	0	33	TR	03-jan-00	23-dec-99	31-oct-01	30-oct-01	596	463
	SUCCESSOR ACTIVITIES			REL LAG						
R5181	SUBMIT LICENSE APPLICATION TO NRC	FS	0	0 528	YY	16-may-02	15-may-02	31-oct-01	30-oct-01	0 -135
MS900	COMPLETE WASTE PKG MATL TESTING FOR LAD	0	232	TR	03-jan-00	23-dec-99	18-apr-00	17-apr-00	0	76
	PREDECESSOR ACTIVITIES			REL LAG						
23200112	CONTINUE PARAMETRIC CONFIRM TESTS	FS	0	65 232	OL	30-sep-99	29-dec-99	18-jan-00	17-apr-00	2 78
	SUCCESSOR ACTIVITIES			REL LAG						
23100916	UPDATE WFCR	SS	0	130 2311	OL	03-jan-00	30-jun-00	18-apr-00	16-oct-00	0 76
23200114	SUBMIT DRAFT EMCR DOCUMENT	SS	0	130 232	OL	03-jan-00	30-jun-00	18-apr-00	16-oct-00	88 76
MS940	FREEZE WASTE PACKAGE LAD FOR PERF ASSESSMENT	0	241	TR	21-mar-01	20-mar-01	27-jun-01	26-jun-01	159	69
	PREDECESSOR ACTIVITIES			REL LAG						

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MS940	Activity Logic Continuation											
	PREDECESSOR ACTIVITIES											
			REL	LAG								
14200278	COMPLETE VERIFY/VALIDATE WPPA MODELS, CY CLE-3	FS	0	65	142	0L	30-sep-99	29-dec-99	03-nov-99	01-feb-00	0	24
14200354	CONDUCT PERFORMANCE ASSESSMENT of WP/LAD	FS	0	65	142	0L	30-sep-99	29-dec-99	03-nov-99	01-feb-00	0	24
14200440	CONDUCT EBS PA ANAL to support TSPA & SI TE CHAR	FS	0	65	142	0L	18-oct-99	14-jan-00	28-mar-01	26-jun-01	307	377
22200140	DETERMINE HYDROLOGIC PROP's, POST-ABBREV TEST	FS	0	195	222	0L	11-may-99	07-feb-00	30-mar-99	27-dec-99	0	-30
23200112	CONTINUE PARAMETRIC CONFIRM TESTS	FS	0	65	232	0L	30-sep-99	29-dec-99	18-jan-00	17-apr-00	2	78
23410028	VERIFY/VALIDATE STATIC EXPERIMENTS	FS	0	65	2341	0L	01-oct-99	30-dec-99	18-jan-00	17-apr-00	0	77
23410068	VERIFY/VALIDATE CORE-FLOW EXPERIMENTS	FS	0	65	2341	0L	01-oct-99	30-dec-99	18-jan-00	17-apr-00	0	77
23410148	DEV WASTE FORM TO TOFF MDL/2D TRANSPORT MDL	FS	0	65	2341	0L	01-oct-99	30-dec-99	18-jan-00	17-apr-00	0	77
23410198	CONT VALIDATE MODELS & ESF VALID TESTS	FS	0	65	2341	0L	01-oct-99	30-dec-99	18-jan-00	17-apr-00	0	77
23500032	SCREEN/SELECT NONMETALLIC BARRIERS	FS	0	261	235	0L	02-oct-98	01-oct-99	27-jun-00	26-jun-01	382	452
23500070	VALIDATE PARAMETRIC MODELS	FS	0	65	235	0L	04-oct-99	31-dec-99	18-jan-00	17-apr-00	0	76
23500092	CONDUCT PERFORMANCE TESTS	FS	0	65	235	0L	04-oct-99	31-dec-99	18-jan-00	17-apr-00	0	76
39200284	FINAL 2D VALIDATED/COUPLED MDLs to LAD	FS	0	65	392	0L	01-oct-99	30-dec-99	28-mar-01	26-jun-01	318	388
MS960	FREEZE REPOS LAD FOR PERFORM ASSESSMENT											
	PREDECESSOR ACTIVITIES											
			REL	LAG								
32221AI	ANALYSIS AND REPORT FOR SD-9	FS	0	120	32221	OS	04-dec-97	29-may-98	03-dec-98	27-may-99	313	249
461D06	UPDATE RPT AVAILABLE TECHNOLOGY EMPLACIN G U/G	FS	0	250	461	OS	03-oct-96	02-oct-97	31-oct-00	30-oct-01	0	1019
461D22	CONTINUE D.R. DEVELOPMENT FOR LAD	FS	0	250	461	OS	02-oct-98	01-oct-99	31-oct-00	30-oct-01	36	520
Z186	REPORT FINAL EVAL AVAIL TECH F/ SEALING U/G FAC	FS	0	0	461	OS	03-oct-97	02-oct-97	31-oct-01	30-oct-01	535	1019
	SUCCESSOR ACTIVITIES											
			REL	LAG								
R5181	SUBMIT LICENSE APPLICATION TO NRC	FS	0	0	528	YY	16-may-02	15-may-02	31-oct-01	30-oct-01	0	-135
SNL118	System Requirements For LA Submitted to											
	PREDECESSOR ACTIVITIES											
			REL	LAG								
121D08	REVISE/UPDATE SYS REQNTS AS REQUIRED	FS	0	251	121	OS	01-oct-91	01-oct-92	29-sep-92	30-sep-93	0	249
T032	UPDATED SYS REQ'S (SR) FOR ACD COMPLETE											
	PREDECESSOR ACTIVITIES											
			REL	LAG								
121D08	REVISE/UPDATE SYS REQNTS AS REQUIRED	FS	0	251	121	OS	01-oct-91	01-oct-92	29-sep-92	30-sep-93	0	249
121D21	SUBMIT UPDATED SD FOR ESF TO YMP T032	N FS	0	273	121	OS	01-oct-91	01-oct-92	29-sep-92	30-sep-93	0	249
	SUCCESSOR ACTIVITIES											
			REL	LAG								





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TR21B450 Activity Logic Continuation											
P267	SUCCESSOR ACTIVITIES UPDATED NEAR-FIELD ENVIRONMENT REPORT (N FER)	FS 0	0 221		0L	06-jun-96	05-jun-96	19-oct-99	18-oct-99	605	878
TR21B500 REVIEW & APPROVE WFCR											
LT361	PREDECESSOR ACTIVITIES SUBMIT UPDATED WFCR	FS 0	0 2311		0L	10-apr-96	09-apr-96	23-aug-99	20-aug-99	0	878
T361	SUCCESSOR ACTIVITIES UPDATED WASTE FORM CHARACTERISTICS RPT (WFCR)	SS 40	0 231		0L	06-jun-96	05-jun-96	19-oct-99	18-oct-99	0	878
TR242130 NON METALIC MAT'L, PREP TECH. REQ'T DOC & LAB TEST											
23500008	SUCCESSOR ACTIVITIES DEVELOP PERFORMANCE CRITERIA	SS 0	261 235		0L	01-oct-93	30-sep-94	17-jan-94	16-jan-95	0	76
TR243380 SUPPORT EBS ESF TEST											
22400100	PREDECESSOR ACTIVITIES INSTALL TEST, ABBREVIATED EBSFT	SS 0	131 224		0L	10-jul-96	08-jan-97	28-may-96	26-nov-96	0	-31
22400200	INSTALL TEST, LONG-TERM EBSFT	SS 0	131 224		0L	10-jul-96	08-jan-97	28-may-96	26-nov-96	0	-31
TR243620 INTERFACE MATERIAL SELECTION											
T220	PREDECESSOR ACTIVITIES FINAL SELECTION OF EBS MATERIALS f/LAD C COMPLETED	FS 0	0 232		0L	02-apr-96	01-apr-96	26-sep-97	25-sep-97	47	388
TR243660 LA INTERFACE INPUT REPORT											
R5181	SUCCESSOR ACTIVITIES SUBMIT LICENSE APPLICATION TO NRC	FS 0	0 528		YY	16-may-02	15-may-02	31-oct-01	30-oct-01	0	-135
TR412200 LAD BASIS FOR DESIGN											
P923	PREDECESSOR ACTIVITIES FLOOD/DEBRIS RISK MAPS FOR SURFACE FACILITIES	FF 0	0 3321		0G	18-oct-96	17-oct-96	16-oct-98	15-oct-98	502	500

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TR432140	FACILITY ALTERNATES	249	432	TR	01-oct-93	29-sep-94	02-dec-94	30-nov-95	0	292
R770	SUCCESSOR ACTIVITIES REPOSITORY ADVANCED CONCEPTUAL DESIGN FR FS EEZE	REL LAG 0	422	OS	30-sep-94	29-sep-94	01-dec-95	30-nov-95	292	292
TR432300	SURFACE FACILITIES PSAR	163	432	TR	03-oct-00	30-may-01	13-mar-01	30-oct-01	240	107
R5181	SUCCESSOR ACTIVITIES SUBMIT LICENSE APPLICATION TO NRC	REL LAG FS 0	528	YY	16-may-02	15-may-02	31-oct-01	30-oct-01	0	-135
TR433021	DESIGN SHAFTS AND RAMPS FACILITIES	107	433	TR	01-nov-93	08-apr-94	04-apr-95	01-sep-95	78	352
R770	SUCCESSOR ACTIVITIES REPOSITORY ADVANCED CONCEPTUAL DESIGN FR FS EEZE	REL LAG 0	422	OS	30-sep-94	29-sep-94	01-dec-95	30-nov-95	292	292
TR433036	FINALIZE LICENSE APPLICATION DESIGN	186	433	TR	03-oct-00	02-jul-01	08-feb-01	30-oct-01	217	84
R5181	SUCCESSOR ACTIVITIES SUBMIT LICENSE APPLICATION TO NRC	REL LAG FS 0	528	YY	16-may-02	15-may-02	31-oct-01	30-oct-01	0	-135
TR435046	LAD FOR UNDERGROUND SURFACE SYSTEMS	873	435	TR	02-jul-96	04-jan-00	07-aug-97	07-feb-01	191	275
3GAT108M	PREDECESSOR ACTIVITIES REPORT: FINAL SITE AMBIENT THERMAL COND FF ACTIVITY	REL LAG 0	32722	OG	20-oct-98	19-oct-98	08-feb-01	07-feb-01	301	577
TR524100	RECEIVE ANNOT OUTLINE REV 2 INPUT	41	524	TR	02-oct-92	01-dec-92	15-oct-92	14-dec-92	0	9
P17A	PREDECESSOR ACTIVITIES OPEN FILE REPORT	REL LAG FS 0	33126	OG	01-sep-92	31-aug-92	15-oct-92	14-oct-92	0	30
TR524150	RECEIVE AO REV 4 INPUT / SUPPORT ORGANIZATIONS	41	524	TR	04-oct-93	01-dec-93	15-oct-93	14-dec-93	0	9
M126	PREDECESSOR ACTIVITIES REPORT ON ISSUES F/POSTCLOSURE PA, YMP C FS OMP	REL LAG 0	141	OS	04-oct-93	01-oct-93	15-oct-93	14-oct-93	0	9
TR524160	AO SKELETON TEXT REV 4 TO NRC	80	524	TR	02-dec-93	31-mar-94	15-dec-93	13-apr-94	0	9
PC08M	PREDECESSOR ACTIVITIES REPORT: REDISTRIBUTION IN LAYERED PROFI FS LES	REL LAG 0	147	OG	05-oct-93	04-oct-93	15-dec-93	14-dec-93	38	47



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TR524310 Activity Logic Continuation										
PREDECESSOR ACTIVITIES										
P746	REPORT: EFFECTS OF TECTONICS & VOLCANISM GW SYS	FS	0	0 32532	OG	11-jun-97	10-jun-97	16-oct-97	15-oct-97	100 88
T514	ASSESSMENTS OF EFFECTS OF FAULTING ON FL UX RATES	FS	0	0 32531	OG	13-aug-97	12-aug-97	16-oct-97	15-oct-97	56 44
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TR524320	AO SKELETON TEXT REV 12 TO NRC			81 524	TR	09-jan-98	01-may-98	16-dec-97	15-apr-98	0 -12
PREDECESSOR ACTIVITIES										
3GSH012M	PROBABILISTIC SEISMIC HAZARD ANALYSIS	FF	0	0 32836	OG	13-mar-98	12-mar-98	16-apr-98	15-apr-98	36 24
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TR524350	RECEIVE AO REV 14 INPUT FROM SUPPORT ORGANIZATIONS			41 524	TR	03-nov-98	08-jan-99	16-oct-98	15-dec-98	0 -12
PREDECESSOR ACTIVITIES										
3GSM138M	REPORT: CURRENT SEISMICITY	FS	0	0 32841	OG	14-oct-98	13-oct-98	16-oct-98	15-oct-98	14 2
P745	P745: EFFECTS OF CLIMATE CHANGE ON SZ	FS	0	0 36222	OG	20-oct-98	19-oct-98	16-oct-98	15-oct-98	0 -2
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TR524370	RECEIVE AO REV 15 INPUT FROM SUPPORT ORGANIZATIONS			43 524	TR	03-may-99	01-jul-99	15-apr-99	15-jun-99	0 -12
PREDECESSOR ACTIVITIES										
3GAT010M	REPORT: GEOTHERMAL REGIME, YUCCA MTN REG ION	FS	0	0 32552	OG	18-nov-97	17-nov-97	15-apr-99	14-apr-99	364 352
3GUS428	FY-99 monitor radial borehole testing	FS	0	124 33124	OG	16-oct-98	15-apr-99	15-oct-98	14-apr-99	0 -1
FA49	WATER-LEVEL DATA AT YUCCA MTN (1997)	FS	0	0 33131	OG	12-apr-99	09-apr-99	15-apr-99	14-apr-99	15 3
P108	DETERMINISTIC MODELING OF STRONG GROUND SHAKE	FS	0	0 32835	OG	22-mar-99	19-mar-99	15-apr-99	14-apr-99	30 18
SUCCESSOR ACTIVITIES										
M383	FINAL TECTONIC MODEL	FS	0	0 3284C	OG	02-jul-99	01-jul-99	31-oct-01	30-oct-01	720 585
2445	REPORTS UPDATING REF THERMOMECH. PROP FO R LAD	FS	0	0 4212	OS	30-sep-99	29-sep-99	17-apr-01	16-apr-01	474 384
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TR524390	RECEIVE AO REV 16 INPUT FROM SUPPORT ORGANIZATIONS			41 524	TR	03-nov-99	10-jan-00	18-oct-99	15-dec-99	0 -12
PREDECESSOR ACTIVITIES										
3GGF044	CONTINUE ESF PLANNING, QA DOCUMENTS	FS	0	1512 32212	OB	09-sep-93	17-sep-99	06-oct-93	15-oct-99	31 19
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TR524410	RECEIVE AO REV 17 INPUT FROM SUPPORT ORGANIZATIONS			42 524	TR	03-may-00	30-jun-00	17-apr-00	14-jun-00	0 -12
PREDECESSOR ACTIVITIES										
1442D10	PREP SAR SECTION, FAV & POTENTIALLY ADVE RSE COND	FS	0	313 1442	OS	01-oct-98	07-jan-00	19-jan-99	14-apr-00	82 70

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LRPIPS CPP Data Group  
 ACTIVITY ACTIVITY DURATION WBS PARTICIPANT EARLY EARLY LATE LATE FREE TOTAL  
 NUMBER DESCRIPTION CODE START FINISH START FINISH FLOAT FLOAT

TR524410 Activity Logic Continuation

PREDECESSOR ACTIVITIES REL LAG  
 M376 FINAL REPORT ON SORPTION (M2) FF 0 0 341 0A 02-nov-99 01-nov-99 15-jun-00 14-jun-00 162 150  
 Q057 HYDROCHEMICAL CHARACTERIZATION AT YUCCA MTN SITE FS 0 0 33132 0G 10-jan-00 07-jan-00 17-apr-00 14-apr-00 81 69

TR524420 AO SKELETON TEXT REV 17 TO NRC 86 524 TR 03-jul-00 01-nov-00 15-jun-00 16-oct-00 0 -12

PREDECESSOR ACTIVITIES REL LAG  
 23200114 SUBMIT DRAFT EMCR DOCUMENT FF 0 130 232 0L 03-jan-00 30-jun-00 18-apr-00 16-oct-00 88 76  
 23410300 SUBMIT DRAFT ITR FF 0 130 2341 0L 31-dec-99 29-jun-00 18-apr-00 16-oct-00 89 77

TR524430 RECEIVE AO REV 18 INPUT FROM SUPPORT ORGANIZATIONS 42 524 TR 02-nov-00 10-jan-01 17-oct-00 15-dec-00 0 -12

PREDECESSOR ACTIVITIES REL LAG  
 M377 SOLUBIL RADIONUCLIDES IN YM WATER (M2) FF 0 0 341 0A 28-jun-00 27-jun-00 18-dec-00 15-dec-00 129 117  
 M633 DIFFUSION TEST REPORT (M3) FS 0 0 33125 0A 02-oct-00 29-sep-00 17-oct-00 16-oct-00 22 10  
 P220 P220; EVALUATION OF DEEP UZ DATA FROM B OREHOLES FS 0 0 33123 0G 07-jan-00 06-jan-00 17-oct-00 16-oct-00 0 197  
 T021 ISSUE FINAL RPT ON DENSITY/POROSITY OF TUFFS FS 0 0 32711 0S 13-sep-00 12-sep-00 17-oct-00 16-oct-00 36 24  
 T022 ISSUE FINAL RPT ON HEAT CAPACITY OF TUFFS FS 0 0 32711 0S 13-sep-00 12-sep-00 17-oct-00 16-oct-00 36 24  
 T023 ISSUE FINAL RPT ON THERMAL CONDUCT. OF TUFFS FS 0 0 32711 0S 13-sep-00 12-sep-00 17-oct-00 16-oct-00 36 24  
 T024 ISSUE FINAL RPT-THERM. EXP. OF TUFFS @ Y M FS 0 0 32712 0S 03-may-00 02-may-00 17-oct-00 16-oct-00 128 116  
 T362 FINAL WASTE FORM CHARACTERISTICS RPT (WF CR) FS 0 0 231 0L 03-jul-00 30-jun-00 17-oct-00 16-oct-00 88 76

TR524440 AO SKELETON TEXT REV 18 TO NRC 80 524 TR 11-jan-01 02-may-01 18-dec-00 16-apr-01 0 -12

PREDECESSOR ACTIVITIES REL LAG  
 22200248 REVISE MODELS/CODES BASED ON ESF RESULTS FF 0 261 222 0L 04-oct-99 02-oct-00 17-apr-00 16-apr-01 152 140  
 22200630 ANALYZE HETEROGENEOUS FRACTURE/NETWORK DESIGN FS 0 261 222 0L 04-oct-99 02-oct-00 17-apr-00 16-apr-01 152 140  
 3GUP242 prep yearly data summary rpts for UZ monitoring FS 0 875 33123 0G 10-apr-96 01-oct-99 20-jun-97 15-dec-00 317 301  
 3GWR047 ground water resources monitoring FS 0 1550 548 0G 11-oct-94 14-dec-00 12-oct-94 15-dec-00 17 1  
 M384 GEOLOGIC MODEL FS 0 0 32213 0G 03-oct-00 02-oct-00 18-dec-00 15-dec-00 66 50

TR524450 RECEIVE LA FINAL DRAFT INPUT FROM SUPPORT ORGANIZ. 50 524 TR 23-aug-01 01-nov-01 17-apr-01 26-jun-01 0 -90

PREDECESSOR ACTIVITIES REL LAG

LRPIPS CPP Data Group	ACTIVITY	ACTIVITY DESCRIPTION	DURATION	WBS	PARTICIPANT CODE	EARLY START	EARLY FINISH	LATE START	LATE FINISH	FREE FLOAT	TOTAL FLOAT
TR524450 Activity Logic Continuation											
PREDECESSOR ACTIVITIES											
0T053603	PREPARE/PROCESS/SUBMIT	EMMP/PR REPORT #2 FS	0	94	534	0T	29-jun-00	13-nov-00	01-dec-00	16-apr-01	195 105
0T561185	PREPARE/ISSUE	JAN-JUN '01 SEMI-ANNUAL MN FF	10	44	561	0T	08-mar-01	08-may-01	11-apr-01	12-jun-01	113 24
0T56201A	PREP/ISSUE	RMP SUPPORT CY00 REPORT FF	10	34	562	0T	02-jan-01	16-feb-01	25-apr-01	12-jun-01	169 80
141D30	PA FOR	FEIS FS	0	161	141	0S	01-jun-00	25-jan-01	16-nov-99	11-jul-00	0 -133
1442D10	PREP SAR SECTION, FAV & POTENTIALLY ADVE	FS	0	313	1442	0S	01-oct-98	07-jan-00	19-jan-99	14-apr-00	82 70
149D99	DEVELOP	SOFTWARE QA FS	0	250	149	0S	02-oct-98	01-oct-99	16-nov-98	15-nov-99	0 31
22400270	VERIFY ABBREVIATED EBSFT DATA ADEQUACY	FF	0	130	224	0L	08-feb-01	08-aug-01	27-dec-00	26-jun-01	0 -31
23200068	CONTINUE LA MODELING SUPPORT	FF	0	195	232	0L	29-sep-00	28-jun-01	27-sep-00	26-jun-01	0 -2
3277	FINAL REPORT ON VALIDATION SIMULATIONS	FS	0	0	341	0A	04-nov-99	03-nov-99	17-apr-01	16-apr-01	378 352
3278	FINAL REPORT FIELD TESTS (M3)	FS	0	0	341	0A	17-nov-00	16-nov-00	17-apr-01	16-apr-01	187 97
36216D61	INDEP PEER REVIEW AND FINAL REPORT	FS	0	250	36216	0S	11-jan-96	09-jan-97	18-dec-95	16-dec-96	0 -12
3GCT337	continue packrat midden and isotopic stu	FS	0	641	36213	0G	06-apr-98	20-oct-00	24-sep-98	16-apr-01	210 120
3GWR037	conduct ground-water monitoring FY-94	FS	0	254	548	0G	05-oct-93	07-oct-94	06-oct-93	11-oct-94	0 1
832T1PPJ	COMPLETE TRANSPORTATION ROUTE LAND ACQUI	FF	0	1	832	0T	21-sep-00	21-sep-00	26-jun-01	26-jun-01	279 190
FA49	WATER-LEVEL DATA AT YUCCA MTN (1997)	FS	0	0	33131	0G	12-apr-99	09-apr-99	15-apr-99	14-apr-99	15 3
G041	G041: CONSERVATIVE-TRACER TESTS AT YUCCA	FS	0	0	33131	0G	17-jan-00	14-jan-00	17-apr-01	16-apr-01	405 315
M271	FINAL NEAR-FIELD ENVIRONMENT RPT (NFER)	FS	0	0	221	0L	02-apr-01	30-mar-01	17-apr-01	16-apr-01	103 11
M374	FINAL REPORT ON WATER CHEMISTRY (M2)	FS	0	0	341	0A	04-nov-98	03-nov-98	17-apr-01	16-apr-01	355 598
M389	M389: FINAL HYDROLOGIC DESCRIPTION OF SZ	FS	0	0	33133	0G	23-jul-01	20-jul-01	17-apr-01	16-apr-01	0 -67
M391	M391: FINAL HYDROLOGIC DESCRIPTION OF UZ	FF	0	0	33129	0G	04-may-01	03-may-01	27-jun-01	26-jun-01	126 37
M623	CL36 ANALYSIS OF UNSATURATED ZONE (M2)	FF	0	0	33122	0A	01-oct-99	30-sep-99	17-apr-01	16-apr-01	401 375
T523	TOTAL SYSTEMS LA PA COMPLETE	FS	0	0	141	0S	23-aug-01	22-aug-01	17-apr-01	16-apr-01	0 -90
P094	REP ON THERMAL MECH MATERIALS MODELS FOR	FS	0	0	4231	0S	04-oct-99	01-oct-99	17-apr-01	16-apr-01	472 382
P220	P220: EVALUATION OF DEEP UZ DATA FROM B	FS	0	0	33123	0G	07-jan-00	06-jan-00	17-oct-00	16-oct-00	0 197
P629	SEPDB STATUS REPORT (FY92) SUBMITTED	FS	0	0	131	0S	08-jan-93	07-jan-93	17-apr-01	16-apr-01	2159 2069
P744	P744: EVALUATION OF UZ HYDROLOGY FOR LA	FS	0	0	33129	0G	14-dec-99	13-dec-99	07-feb-00	04-feb-00	0 37
P745	P745: EFFECTS OF CLIMATE CHANGE ON SZ	FS	0	0	36222	0G	20-oct-98	19-oct-98	16-oct-98	15-oct-98	0 -2
P755	P755: TRACER TEST IN SECOND MULTIPLE-WEL	FS	0	0	33131	0G	18-apr-01	17-apr-01	17-apr-01	16-apr-01	0 -1
P894	P894: 3-D DUAL POROSITY, FLOW MODEL OF S	FS	0	0	33133	0G	23-jul-01	20-jul-01	17-apr-01	16-apr-01	0 -67
R360	CONCEP MODEL OF MIN/EVOL AT YM R360 (M3)	FF	0	0	32123	0A	01-oct-97	30-sep-97	17-apr-01	16-apr-01	624 867
T011	GEOCHEM CHARACTERIZATION OF YM T011 (M2)	FF	0	0	321	0A	20-apr-00	19-apr-00	17-apr-01	16-apr-01	269 243
T012	SUMY RADIONUC RETARDA AT YM (M2)	FS	0	0	34151	0A	23-may-01	22-may-01	17-apr-01	16-apr-01	0 -26
T123	COMPLETE REPOSITORY LAD REPORT	FS	0	0	41	0S	31-jul-00	28-jul-00	17-apr-01	16-apr-01	267 177

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TR524450 Activity Logic Continuation										
	PREDECESSOR ACTIVITIES									
	REL LAG									
T329	ANAL RPT OF ALL DATA ON MECH PROP OF FRA FS	0	0	32714	OS	23-aug-01	22-aug-01	17-apr-01	16-apr-01	0 -90
	CTURES									
T331	ANAL RPT OF ALL DATA ON MECH PROP OF INT FS	0	0	32713	OS	20-feb-01	19-feb-01	17-apr-01	16-apr-01	130 40
	ACT ROCK									
T362	FINAL WASTE FORM CHARACTERISTICS RPT (WF FS	0	0	231	OL	03-jul-00	30-jun-00	17-oct-00	16-oct-00	88 76
	CR)									
Z107	REFERENCE DESIGN CALCULATIONS (LAD) COMP FS	0	0	1431	OS	22-dec-99	21-dec-99	17-apr-01	16-apr-01	417 327
	LETED									
Z445	REPORTS UPDATING REF THERMOMECH. PROP FO FS	0	0	4212	OS	30-sep-99	29-sep-99	17-apr-01	16-apr-01	474 384
	R LAD									
P734	ISSUE FINAL RPT: DEEP UZ DATA, DRILL HO FF	0	0	33123	OG	07-jan-00	06-jan-00	27-jun-01	26-jun-01	460 371
	LE MON.									
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TR524460	PREPARE LA		88	524	TR	14-jan-02	15-may-02	27-jun-01	30-oct-01	0 -133
	PREDECESSOR ACTIVITIES									
	REL LAG									
5Z56141	OBTAIN SECRETARY SIGNOFF & PREP LA FOR N FS	0	15	528	WM	20-dec-01	11-jan-02	06-jun-01	26-jun-01	0 -135
	RC									
M273	FINAL REPORT, LAD WP PA	0	0	142	OL	27-sep-01	26-sep-01	31-oct-01	30-oct-01	165 24
	SUCCESSOR ACTIVITIES									
	REL LAG									
R5181	SUBMIT LICENSE APPLICATION TO NRC	0	0	528	YY	16-may-02	15-may-02	31-oct-01	30-oct-01	0 -135
	FS									
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TR526B09	YMPO/DOE HQ/PARTIC. REVIEW PR-6		20	526	TR	23-sep-92	20-oct-92	26-jun-95	24-jul-95	0 687
	SUCCESSOR ACTIVITIES									
	REL LAG									
M536	SUBMIT INPUT TO SITE CHAR. PROGRESS RPT. FS	0	0	526	OT	21-oct-92	20-oct-92	25-jul-95	24-jul-95	0 691
	#6									
-----										
TR526B12	DOE HW CONCUR/COMPLETE PR-6		34	526	TR	21-oct-92	09-dec-92	25-jul-95	11-sep-95	0 687
	PREDECESSOR ACTIVITIES									
	REL LAG									
M536	SUBMIT INPUT TO SITE CHAR. PROGRESS RPT. FS	0	0	526	OT	21-oct-92	20-oct-92	25-jul-95	24-jul-95	0 691
	#6									
-----										
TR526B15	PREP & SUBMIT INPUT TO PROG RPT #7		18	526	TR	21-oct-92	13-nov-92	16-aug-95	11-sep-95	16 703
	PREDECESSOR ACTIVITIES									
	REL LAG									
M536	SUBMIT INPUT TO SITE CHAR. PROGRESS RPT. FS	0	0	526	OT	21-oct-92	20-oct-92	25-jul-95	24-jul-95	0 691
	#6									
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LRPIPS CPP Data Group	ACTIVITY NUMBER	ACTIVITY DESCRIPTION	DURATION	WBS	PARTICIPANT CODE	EARLY START	EARLY FINISH	LATE START	LATE FINISH	FREE FLOAT	TOTAL FLOAT
	TR526B80	SUBMIT SEMI-ANNUAL PROGRESS RPTS TO HQ	1250	526	TR	14-feb-95	14-feb-00	30-oct-96	30-oct-01	565	432
	R5181	SUCCESSOR ACTIVITIES SUBMIT LICENSE APPLICATION TO NRC	REL LAG FS 0	0 528	YY	16-may-02	15-may-02	31-oct-01	30-oct-01	0	-135
	TR6080	COMPLETE TITLE II DESIGN	0	672	TR	12-jan-96	11-jan-96	31-oct-01	30-oct-01	705	2119
	M387	PREDECESSOR ACTIVITIES PROBABILISTIC SEISMIC HAZARD STUDY	REL LAG FS 0	0 32836	OG	12-jan-96	11-jan-96	15-feb-96	14-feb-96	0	24
	M23	SUCCESSOR ACTIVITIES COMPLETE RAMPS/MTA/EXPL DRIFTS	REL LAG FF 0	0 684	OR	17-dec-97	16-dec-97	31-oct-01	30-oct-01	0	973
	TR621210	SITE PREPARTION DESIGN FOR SECOND ACCESS AREA	250	621	TR	16-aug-93	15-aug-94	02-jul-93	01-jul-94	0	-30
	3GSR024M	PREDECESSOR ACTIVITIES FINAL REPORT: SOUTH PORTAL COMPLETE	REL LAG FF 30	0 32622	OG	05-jul-94	01-jul-94	20-may-94	19-may-94	0	-30
	OTPS53	SUCCESSOR ACTIVITIES PAS - SITE AND ROADS 2ND ACCESS	REL LAG FS 0	40 533	OT	16-aug-94	12-oct-94	02-jul-98	27-aug-98	0	973
	OTPS54	PAS - H-ROAD UPGRADE	FS 0	40 533	OT	16-aug-94	12-oct-94	05-jul-94	29-aug-94	0	-30
	OTPS59	PAS - MUCK STORAGE PAD & ROAD	FS 0	40 533	OT	16-aug-94	12-oct-94	30-aug-94	26-oct-94	40	10
	OTPS65	PAS - OPTIONAL ACCESS SITE AND ROADS	FS 0	40 533	OT	16-aug-94	12-oct-94	21-sep-98	17-nov-98	375	1028
	TR621215	SUPPORT FLUOR DANIEL DESIGN/SOUTH PORTAL SITE	250	621	TR	01-oct-92	30-sep-93	27-oct-93	26-oct-94	0	268
	OR6212D	SUCCESSOR ACTIVITIES SITE AND ROADS - SECOND ACCESS	REL LAG FS 0	218 6212	OR	13-dec-94	23-oct-95	27-oct-98	08-sep-99	0	973
	OR621401	H ROAD UPGRADE	FS 0	83 6214	OR	13-dec-94	11-apr-95	27-oct-94	28-feb-95	0	-30
	OR621406	MUCK STORAGE PAD & ROAD	FS 0	115 6214	OR	09-feb-95	24-jul-95	28-dec-94	09-jun-95	0	-30
	TR621310	SITE PREP DESIGN FOR OPTIONAL ACCESS AREA	124	621	TR	16-dec-94	16-jun-95	16-jul-98	18-jan-99	0	893
	OR6213D	SUCCESSOR ACTIVITIES OPT'L ACCESS - SITE & ROADS	REL LAG FS 0	165 6213	OR	10-jun-96	05-feb-97	19-jan-99	10-sep-99	0	653
	TR622210	UTILITIES & COMM SYS.DESIGN-2ND ACCESS AREA	249	622	TR	01-oct-92	29-sep-93	30-sep-96	26-sep-97	0	998
	OR6222D	SUCCESSOR ACTIVITIES SURF UTIL/COMM - SECOND ACCESS	REL LAG FS 0	255 6222	OR	03-mar-95	07-mar-96	25-oct-00	30-oct-01	0	1419
	OTPS60	PAS - SURF UTIL/COMM - 2ND ACCESS	FS 0	40 533	OT	30-sep-93	30-nov-93	30-jun-00	25-aug-00	274	1693
	TR622310	UTILITIES & COMM.SYS.DESIGN-OPTIONAL ACCESS	250	622	TR	03-oct-94	02-oct-95	29-sep-98	28-sep-99	0	997
	OR6223D	SUCCESSOR ACTIVITIES OPT'L ACCESS - SURFACE UTIL/COMM	REL LAG FS 0	140 6223	OR	27-aug-96	20-mar-97	27-jan-00	14-aug-00	202	855
	OTPS66	PAS - OPTIONAL ACCESS SURF UTIL/COMM	FS 0	40 533	OT	03-oct-95	01-dec-95	29-sep-99	29-nov-99	146	1001

LRPIPS CPP Data Group	ACTIVITY	ACTIVITY DESCRIPTION	DURATION	WBS	PARTICIPANT CODE	EARLY START	EARLY FINISH	LATE START	LATE FINISH	FREE FLOAT	TOTAL FLOAT
TR631100	SURFACE FACILITY DESIGN - FIRST ACCESS AREA		249	631	TR	01-oct-92	29-sep-93	02-nov-99	30-oct-00	1	1771
	SUCCESSOR ACTIVITIES	REL LAG									
OR6311D	BLDGS & SURF FACILITIES - FIRST ACCESS	FS 0	198	6311	OR	23-nov-93	06-sep-94	19-jan-01	30-oct-01	0	1794
TR631210	SURFACE FACILITY DESIGN - SECOND ACCESS		250	631	TR	01-oct-92	30-sep-93	05-oct-99	03-oct-00	0	1751
	SUCCESSOR ACTIVITIES	REL LAG									
OR6312D	BLDGS & SURF FACILITIES - SECOND ACCESS	FS 0	189	6312	OR	12-may-95	13-feb-96	01-feb-01	30-oct-01	462	1435
OTPS62	PAS - BLDGS & SURF FACILITIES - 2ND ACCE SS	FS 0	40	533	OT	01-oct-93	01-dec-93	04-oct-00	04-dec-00	323	1758
TR631215	SURFACE FACILITY DESIGN - SUPPORT		250	631	TR	01-oct-92	30-sep-93	01-jun-98	28-may-99	0	1413
	SUCCESSOR ACTIVITIES	REL LAG									
OR622404	SURF UTIL/COMM - OTHER LOCATIONS	FS 0	38	6224	OR	25-oct-93	20-dec-93	01-jun-99	23-jul-99	431	1404
TR631220	SURFACE FACILITY DESIGN - SECOND ACCESS		249	631	TR	01-oct-93	29-sep-94	01-nov-00	30-oct-01	316	1771
	PREDECESSOR ACTIVITIES	REL LAG									
3GSR024M	FINAL REPORT: SOUTH PORTAL COMPLETE	FF 30	0	32622	OG	05-jul-94	01-jul-94	20-may-94	19-may-94	0	-30
TR631310	OPT. ACCESS-HOIST		124	631	TR	03-oct-94	04-apr-95	21-aug-98	23-feb-99	0	971
	SUCCESSOR ACTIVITIES	REL LAG									
OR672D	OPT'L ACCESS EXC/LINE/UTIL/EQUIP	FS 0	304	672	OR	12-jan-98	26-mar-99	15-aug-00	30-oct-01	0	653
OTPS67	PAS - OPT'L ACCESS COLLAR/PORTAL, FORESH AFT/PLNT	FS 0	40	533	OT	05-apr-95	31-may-95	24-feb-99	20-apr-99	322	975
TR631320	SURFACE FACILITY DESIGN FOR OPTIONAL ACCESS AREA		250	631	TR	03-oct-94	02-oct-95	29-sep-98	28-sep-99	0	997
	SUCCESSOR ACTIVITIES	REL LAG									
OR6313D	OPT'L ACCESS - BLDGS & SURFACE FACILITIES	FS 0	135	6313	OR	27-aug-96	13-mar-97	27-jan-00	07-aug-00	0	855
OTPS70	PAS - OPT'L ACCESS BLDGS & SURFACE FACILITIES	FS 0	40	533	OT	03-oct-95	01-dec-95	29-sep-99	29-nov-99	146	1001
TR642100	FIRST ACCESS, EXC.		209	642	TR	02-nov-93	02-sep-94	14-oct-93	16-aug-94	0	-13
	PREDECESSOR ACTIVITIES	REL LAG									
3GSR028M	FINAL REPORT: NORTH RAMP COMPLETE	FF 30	0	32623	OG	04-aug-94	03-aug-94	18-jul-94	15-jul-94	0	-13
TR643010	FIRST ACCESS CH DESIGN		144	643	TR	01-dec-93	29-jun-94	04-jan-99	26-jul-99	65	1267
	SUCCESSOR ACTIVITIES	REL LAG									
OR643DA	FIRST ACCESS CH EXC/UTIL/EQUIP (#1 OF 2)	FS 0	193	643	OR	31-may-95	07-mar-96	27-jul-99	02-may-00	0	1043



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LRPIPS CPP Data Group

ACTIVITY NUMBER	ACTIVITY DESCRIPTION	DURATION	WBS	PARTICIPANT CODE	EARLY START	EARLY FINISH	LATE START	LATE FINISH	FREE FLOAT	TOTAL FLOAT
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TR672010 Activity Logic Continuation

	SUCCESSOR ACTIVITIES	REL	LAG									
OR672D	OPT'L ACCESS EXC/LINE/UTIL/EQUIP	FS	0	304	672	OR	12-jan-98	26-mar-99	15-aug-00	30-oct-01	0	653

TR684020 INTEGRATED DATA SYSTEMS DESIGN

	SUCCESSOR ACTIVITIES	REL	LAG									
OR684DA	INTEGRATED DATA SYSTEMS (#1 OF 2)	SS	0	60	684	OR	13-jun-94	06-sep-94	06-aug-01	30-oct-01	821	1794
OR684DB	INTEGRATED DATA SYSTEMS (#2 OF 2)	SS	0	645	684	OR	20-jul-94	13-feb-97	08-apr-99	30-oct-01	210	1183

TR684030 INTEGRATED DATA SYSTEMS DESIGN

	SUCCESSOR ACTIVITIES	REL	LAG									
R5181	SUBMIT LICENSE APPLICATION TO NRC	FS	0	0	528	YY	16-may-02	15-may-02	31-oct-01	30-oct-01	0	-135

TR685020 INTEGRATED DATA SYSTEMS OPERATION & MAINT.

	SUCCESSOR ACTIVITIES	REL	LAG									
22400100	INSTALL TEST, ABBREVIATED EBSFT	SS	0	131	224	OL	10-jul-96	08-jan-97	28-may-96	26-nov-96	0	-31
22400200	INSTALL TEST, LONG-TERM EBSFT	SS	0	131	224	OL	10-jul-96	08-jan-97	28-may-96	26-nov-96	0	-31
R5181	SUBMIT LICENSE APPLICATION TO NRC	FS	0	0	528	YY	16-may-02	15-may-02	31-oct-01	30-oct-01	0	-135

2163 ACD ANALYSIS REPOS VENT SYSTEM CONT

	PREDECESSOR ACTIVITIES	REL	LAG									
4232D10	T/M ANALYSES OF ESF OPENINGS	FS	0	250	4232	OS	02-oct-92	01-oct-93	02-oct-92	01-oct-93	0	0

**ATTACHMENT 6**

**GUIDELINES FOR BOE**

## **GUIDELINES FOR PREPARING BASIS OF ESTIMATES**

The purpose of the Basis of Estimate (BOE) is to provide information regarding the estimate. This is important in understanding the cost estimate and schedule, and for doing meaningful "what if" exercises. A Basis of Estimate is required for each P&S Account.

### **HEADING**

The heading is the identifying data and serves as a reference to the PACS cost and schedule information. The BOE is to be completed at the P&S Account level. The P&S Title on the BOE should be the same as the P&S Title on the PACS P&S Account Input Form. The heading information must be completed on the first page of the BOE. The only heading information required on subsequent pages is the P&S Title.

### **1. ACTIVITIES**

All LOE and Discrete activities from all Summary Accounts within the P&S Account should be listed here. The list should include all discrete activities that are on the LRP schedule.

### **2. DELIVERABLES/PRODUCTS/OUTPUTS**

All deliverables, products, and outputs are listed here. Important interfaces with other participants should also be included.

### **3. ASSUMPTIONS**

Include assumptions that have cost and/or performance impact. For example, an assumption that drilling is to be done more than one shift per day or that your testing is contingent upon the completion of an activity by another participant should be listed.

### **4. MANPOWER ESTIMATE**

Itemize the labor hours required by the four labor categories, by year. Do not include dollars.

### **5. EXTRAORDINARY ODC/CAPITAL**

Travel, relocations, conferences and other ODCs are listed here as ODCs. List the ODCs and Capital separately and mark each item to identify it as ODC or Capital.

### **6. ESTIMATING METHODOLOGY**

Check the appropriate box and describe the method used in deriving the cost. A combination of methodologies may be necessary to estimate one or more elements of cost. Do not include dollars.

**ATTACHMENT 7**

**BOE SAMPLE FORMAT**

# BASIS OF ESTIMATE

Page 1 of \_\_\_

P&S TITLE: \_\_\_\_\_

DATE: \_\_\_\_\_

P&S NUMBER: \_\_\_\_\_

WBS NUMBER: \_\_\_\_\_

ESTIMATOR: \_\_\_\_\_

PARTICIPANT: \_\_\_\_\_

---

## P&S DESCRIPTION

**1. Activities (LOE & schedule activities within all Summary Accounts)**

**2. Deliverables/Products/Outputs**

**3. Assumptions**

# BASIS OF ESTIMATE

(Cont'd)

Page 2 of \_\_\_

P&S TITLE: \_\_\_\_\_

DATE: \_\_\_\_\_

P&S NUMBER: \_\_\_\_\_

WBS NUMBER: \_\_\_\_\_

ESTIMATOR: \_\_\_\_\_

PARTICIPANT: \_\_\_\_\_

## P&S DESCRIPTION

### 4. Manpower Estimates

Labor Category	FY1993 Hours	FY1994 Hours	FY1995 Hours	FY1996 Hours	FY1997 Hours	FY1998 Hours	FY1999 Hours	FY2000 Hours	FY2001 Hours
Management									
Sr Professional									
Jr Professional									
Support									

### 5. Extraordinary ODC/Capital

### 6. Estimated Methodology (Check appropriate box and give a description)

Historical Data

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Company or Industry Standards

---

---

Level of Effort

---

---

Vendor Quotes

---

---

Engineering Judgement

---

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Detailed Planning

---

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Other

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