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QA: N/A

**Civilian Radioactive Waste Management System
Management & Operating Contractor**

Monthly Summary Report

July 1995

Prepared for:

**U.S. Department of Energy
Office of Civilian Radioactive Waste Management
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**Under Contract Number
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ENCLOSURE 1

- Successfully coordinated and conducted interactions with Nuclear Waste Technical Review Board (NWTRB) Staff members and DOE management regarding Repository Design status and thermal loading issues.
- Evaluated possible consequences if poor rock conditions are encountered throughout the repository horizon. The evaluation indicated that the repository construction schedule would not be significantly affected, but costs would significantly increase due to the additional ground support needed. Alternative mining techniques that might help to reduce costs were also evaluated.

Systems Engineering

- Made a presentation to Assistant Manager of Suitability and Licensing (AMSL) on the status of the Inverts Reassessment Systems Study. The presentation included the progress made in refining the recommendations resulting from the study. The briefing suggested that a final recommendation would need to wait for the completion of ROM quantitative cost assessment currently underway.
- Draft A of the Interim Change Notice (ICN) on Yucca Administrative Procedure (YAP)-3.6Q regarding turnover of Project Interface Control Working Group (ICWG) responsibility from YMSCO to M&O has been approved. The ICN deletes the requirement that YMSCO appoint the ICWG Chairperson. This proposed change has been distributed to reviewers identified in the QAP 6.2 review instruction form.
- Finalized the YMSCO internal plan for ensuring MPC compliance with 10CFR60.21 (c)(1)(ii) (D). This has also been documented to support future license application activities. Compliance with this clause must be ensured prior to the MPC acquisition decision point. This YMSCO response to Action Item A009 of Level 1 Baseline Change Proposal (BCP)-00-94-0001 is in DOE concurrence review prior to transmittal from the YMSCO Project Manager to the Program Project Baseline Change Control Board Chairperson.

3.1.1.2 Issues and Concerns

- None.

Executive Summary

- Started 3-Series revisions on Quality Administrative Procedures (QAPs). Developed strawman schedules for QAP revisions and will begin providing weekly status to the Quality Review Board. Changes to the Design Control Process (DCP) will include deletion of reviews not required by the Quality Assurance Requirements and Descriptions (QARD), significantly abbreviating the design review process. The changes are being incorporated in the current DCP and have been reviewed and agreed to by DOE.
- Completed the scoping studies for criticality control materials. No significant corrosion occurred for unwelded Carpenter (powder metallurgy) and Bohler Brothers (wrought) stainless steel-boron. The Hf-Zr alloy and most of the ceramic materials were similarly unaffected. In contrast, aluminum-boron and two Glidcop samples containing boron, as well as the welded stainless steel-boron, did react.
- Completed OCRWM QA audit YNP-ARP-95-19 with Sandia National Laboratory (SNL). The collection of objective evidence resulted in no CARs being issued. Four Deficiency Reports (DRs) were presented as potential findings during the post audit briefing, primarily involving interface issues.

Product Integrity

- The Management Plan for Resolving Quality Affecting Issues Resulting from M&O and DOE Audits and Surveillances (paragraph 4.5.2) requires an external review of all quality affecting design products. The Office of Product Integrity (OPI) organization reviewed design products resulting in 78 recommendations.

Repository/Alternative Conceptual Design (ACD)

- Supported the development and exercising of the Critical Path to License Application (CP2LA) Logic Network. The network consists of approximately 400 activities necessary to move from today's Project status to a successful License Application submittal. Included are the activities necessary to support a successful Investment Decision/Technical Site Suitability finding and an Environmental Impact Statement. The network was used to develop approaches for several project funding scenarios including an unconstrained case, \$325M flat funding, \$250M flat funding, \$250M declining budget, and where funding is restored after a year's decrease to \$250M.
- Developed an M&O position regarding YMSCO's request to complete MGDS ACD by March 1996, 1 year earlier than currently planned. Completion of the ACD workscope as currently defined by the M&O is not possible by March 1996, but an MGDS Reference Design can be created. The Reference Design would indicate the latest status of the MGDS design and the design strategy and timeframe for completing conceptual development for incomplete areas. A redefinition of ACD completion equaling what can be accomplished by March 1996 will be required if the Reference Design compromise is not accepted.

EXECUTIVE SUMMARY

General Managers's Summary:

Integration efforts continue to gain momentum. The Systems Engineering Management Plan (SEMP), Mined Geologic Disposal System (MGDS)/Multi-Purpose Canister (MPC) Interface Issues Study Report, and Interface Control Working Group (ICWG) Charter were submitted. All three documents will improve cross-project coordination and cooperation.

Design and development deliverables included the fourth and final section of the draft Waste Package Conceptual Design Report, two degradation studies, and the "Cost, Health, and Safety Impacts of a Hybrid MPC System Report." Advancement was also made in developing the MPC loading curves.

Other significant accomplishments included completion of test alcove number 2 and submission of the final report on the Calico Hills Study and the final MGDS Total System Life Cycle Cost (TSLCC). The final MGDS TSLCC is almost \$1.4B less than the May 1995 TSLCC draft.

The Tunnel Boring Machine (TBM) was down most of the month for scheduled maintenance and installation of the muck conveyor system. Tunneling remains 5 weeks ahead of schedule, but the TBM continues to encounter difficult ground conditions. Fiscal Year (FY) 1996 budgeting uncertainties and late availability of data on the plutonium waste forms needed to support DOE's Preliminary Environmental Impact Statement (PEIS) on plutonium disposition continue to cause concern.

Highlights for this reporting period are as follows:

Integration

- Delivered Revision 4 of the Systems Engineering Management Plan (SEMP) to Office of Civilian Radioactive Waste Management (OCRWM) for Program Baseline Change Control Board (PBCCB) approval. This revision responds to System Engineering action team issues. It adds expectations levied on the Projects: for specific development phases; decisions; guidance for technical reviews; Integrated Logistics Support Plans; Reliability, Availability and Maintainability; and System Safety.
- Submitted the MGDS/MPC Interface Issues Study Report to DOE for acceptance review. The study report discussed the strategy for incorporation of the MPC into the MGDS, identified interface issues, developed a set of key decision points for resolution of MGDS issues related to the MPC, and discussed constraints imposed on the MGDS by the MPC.
- Incorporated final comments on the Program Interface Control Working Group (ICWG) into the ICWG Charter, which was forwarded to RW-30 for signature. Revised the Interface Control Document (ICD) Technical Document Preparation Plan (TDPP) to incorporate the interface

- Conducted a meeting with the M&O Waste Acceptance, Storage and Transportation (WAST) organization in Vienna to resolve Multi-Purpose Canister (MPC) criticality control issues. Technical requirements for long-term criticality control were successfully integrated with the short-term decisions necessary for the MPC program. Evaluated which spent nuclear fuel (SNF) would qualify to be placed into the MPC with respect to potential criticality. Using the methods in the "Topical Report on Actinide-Only Burnup Credit for Pressurized-Water Reactor (PWR) SNF Packages, Revision 0," the results indicated only a few SNF assemblies would qualify. Additional calculations have provided options to accommodate the majority of the SNF at the reactor sites.
- Completed critical potential scans for a portion of the test matrix in 5% NaCl solutions held at different pH levels in the acidic, neutral, and alkaline ranges. High nickel alloys (G-3, C-4, and C-22) did not undergo any localized attack and their critical potentials were well beyond the range of electrochemical potentials scanned in these short time tests. These are very encouraging results that need confirmation in longer-term tests.
- Submitted the Yucca Mountain Site Characterization Report on schedule. The report includes results of Repository Integration Program (RIP) and Yucca Mountain Integrating Model (YMIM) calculations for the waste package subsystem. In addition, it discusses predictions of corrosion lifetimes for the corrosion allowance barrier and oxidation rates for the fuel and fuel cladding under nominal conditions.
- Closed CARs 95-QN-008 and 95-QN-015. At present MGDS Development is working five M&O Deficiency Reports, three M&O Corrective Action Requests (CARs), and two Yucca Mountain (YM) CARs. Ten quality actions are active. The major projects are to expand the information required to close CAR YM-94-073 and organize training to satisfy CAR YM-95-028.
- Developed a Monte Carlo Neutron and Photon (MCNP) transport code for the MCNP MPC Flux Trap Model based upon non-proprietary information for the Westinghouse-MPC and the Nuclear Assurance Corporation-Storeable Transport Cask (NAC-STC). The model will be modified as more information concerning the Westinghouse-MPC is released. Ran calculations to determine the effect of water inside the pellet-clad gap, removal of the boron neutron absorber, and filling the flux trap separative gap with non-hydrogenous material.
- Analyzed various MPCs with short emplacement spacing to determine temperatures inside the waste packages. Concluded that for the large waste package at 100 MTU/acre, the drift wall temperature criterion is violated (slightly) before the peak cladding temperature criterion. Minimum spacing for average waste packages is 12 meters, and a minimum 16-meter waste package spacing provides a conservative lower bound since SNF characteristics vary.
- Completed "Triple Play" MOX SNF calculations. This SNF was found to be extremely reactive providing a keff of 1.18 in a 21-assembly MPC conceptual design and a keff of 0.89 in a 12-assembly uncanistered fuel (UCF) waste package with 1.6 wt% borated stainless steel baskets and B4C disposable control rods.

management process requirements defined in the final charter approved by the ICWG membership. Development work on the MGDS-Trans and MGDS-WA Interface Control Documents (ICDs) continued in anticipation of approval of the charter and the revised TDPP.

Waste Package Design and Development

- Delivered the fourth of the four draft sections of the Waste Package Conceptual Design Report, Uncanistered Fuel (UCF) Disposal Container, to YMSCO on July 28, 1995.
- Completed and submitted the status report on the pitting corrosion modeling work as project deliverable MOL 189. Completed and submitted the draft report on the degradation mode survey on Monel 400 as project deliverable MOL 181. This report will be published as part of the series of degradation mode surveys of the current candidate container materials following technical and programmatic review.

Multi-Purpose Canister Design and Development

- Completed a successful DOE, M&O, and Westinghouse meeting on July 13, 1995, with NRC on QA and Management of the MPC Project. This meeting responded to concerns voiced by the NRC Executive Director of Operations at the initial meeting June 8, 1995.
- Completed and delivered the Cost, Health, and Safety Impacts of a Hybrid MPC System Report to RW-46. This report compares the cost, health, and safety aspects of a Hybrid MPC System with the current Program Approach. A Hybrid MPC System limits the use of MPCs only to cases where dry interim storage is required.
- Conducted a Waste Package Design team meeting to review the MPC spent nuclear fuel (SNF) loading curve. Using the method defined in the "Burnup Credit Topical Report, Actinides Only" the loading curve encompassed a small portion of the SNF. In addition to burnup credit, supplemental neutron absorbers will allow the MPC to encompass over 50 percent of the SNF. Conducted calculations using disposable control rod assemblies in the MPC loading curve models. Results show that the MPC design based upon the "minimum" specification design features could accept a large portion of the PWR SNF inventory.

Tunneling Progress

- Tunneling is 5 weeks ahead of schedule. Progress was limited this month to 36.1 meters (118.41 feet) by poor ground conditions and an extended shutdown period needed to conduct 500-hour maintenance tasks. The shutdown provided time to modify the TBM to improve performance in poor ground and to install the new muck conveyor. Alcove number 2 was completed, reaching a depth of 48 meters (157.44 feet) and achieving Level III Project Milestone OR65M007.

3. MAJOR SYSTEM ACQUISITION PROJECTS

3.1 YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT CWBS 1.2

MANAGER: L. D. Foust

3.1.1 Engineering and Integration Operations

MANAGER: R. D. Snell

OBJECTIVE(S): Provide overall Systems Engineering services supporting the Yucca Mountain Site Characterization Project (YMP). Provide Exploratory Studies Facility (ESF), Repository, and Waste Package Design and Construction support services (MGDS Development). Provide Repository Project Engineering services. Conduct product integrity technical assurance and cost effectiveness evaluation and analysis. Provide strategic planning and technical support and integration for the YMP.

3.1.1.1 Progress During Report Period

Mined Geological Disposal System (MGDS) Development

- Issued Level III Milestone TM475 "Repository Subsurface Ventilation Scoping Evaluation Report." It contains a scoping evaluation of the two repository subsurface main ventilation systems. Developed required airflow quantities and fan pressure over the life of both the emplacement and development systems. In addition, presented preliminary concepts for subsurface ventilation control devices.
- Issued Level III Milestone TM460 "Remote Handling/Robotics Evaluation Report." It contains an industry survey of available Remote Handling and Robotics (RH&R) technology, an assessment of the repository subsurface conceptual operations for applicability of RH&R, and an assessment of the expected conditions in a subsurface repository emplacement environment as it pertains to the operability of RH&R equipment.
- Issued Level III Milestone TM441 "Repository Ground Control Evaluation Report." Assessed the stability of emplacement drifts over the 100 year retrieval period. Used the computer codes FLAC and UDEC to model the emplacement drift ground conditions with various ground control systems in place. The computer model results are included along with interpretive

Calico Hills Study

- Submitted the final report on the Calico Hills Study to the DOE for acceptance review. The report "Systems Study for Characterizing the Calico Hills Nonwelded Hydrogeologic Unit at Yucca Mountain, Nevada, Rev. 00," fulfills deliverable number TM112.

MGDS Cost Estimate

- Completed the 1995 Total System Life-Cycle Cost (TSLCC) MGDS final estimate. The updated MGDS cost estimate incorporated changes resulting from design and cost updates (waste package Title I cost estimate), modeling improvement (subsurface area), and responses to the Independent Cost Assessment team comments. The latest update resulted in a MGDS cost reduction of \$1,395M (FY94) compared with the TSLCC draft published in May 1995.

2.2 FINANCE AND ADMINISTRATION

- Provided weekly and monthly letter of credit reporting requirements to Contracting Officer and to the Controller's Office.
- Provided input to the Travel Reduction Task Team for the DOE FY96 Plan.
- Successfully completed working with DOE Controller's Office, DOE procurement, DOE field offices, and national laboratories to align FY95 funding and costs in the DOE FIS.

2.3 HUMAN RESOURCES

- Dr. Martha Miller taught two 4-hour cross cultural communication and managing diversity sessions and will teach another session in September.
- Submitted the 1995-1996 Affirmative Action Plans for M&O Las Vegas and SIG-East to OCRWM. Also submitted Exempt and Non-Exempt Contingency Fund Spending Reports through June 30, 1995.
- Total Quality Management (TQM) identified two Human Resources processes for improvement: employee transfers and form ordering. Completed process flows and streamlined them to improve efficiency and understanding.
- Gave a presentation to DOE management on training notification changes and delinquency escalation.
- Presented Systems Engineering panel task force recommendations on Systems Engineering Hiring. The study focuses on attracting and retaining talent to meet changing business requirements.

2.4 MANAGEMENT SYSTEMS

- Conducted a meeting with representatives from the new national laboratory teammates to address the needed FY95 funding reconciliation and FY96 reporting requirements and methodologies. Reached agreement on how to reconcile FY95, and developed formats and a coordinated approach for FY96.

2.5 ISSUES AND CONCERNS

- None.

Performance Measurement Cost and Schedule Variance

WASTE MANAGEMENT SYSTEM

FF 1996
M/EXLEY
CWBS M&O PMS DATA (\$000)

through May 31/96

WBS	TITLE	CURRENT MONTH					FISCAL YEAR-TO-DATE					AT COMPLETE		
		BUDGET	EARNED VALUE	ACTUALS	SCHED	COST	BUDGET	EARNED VALUE	ACTUALS	SCHED	COST	BUDGET	PCSI	VAC
1.2	YMP	25,436	36,502	20,031	11,066	16,471	178,737	189,772	177,150	11,035	12,622	237,184	264,875	(27,691)
3.0	WAST PROJECT	4,258	4,148	3,649	(110)	499	21,409	20,611	18,331	(798)	2,280	45,286	44,742	544
9.1	PROGRAM QUALITY ASSURANCE	300	300	263	0	37	3,093	3,093	2,707	0	386	3,902	3,552	250
9.2/9.3.2/9.3.3/9.3.5	PROGRAM MANAGEMENT & INTEGRATION	1,640	1,524	1,312	(116)	212	13,987	13,463	12,747	(524)	716	17,744	17,593	151
9.3.4/9.3.6	EXTERNAL RELATIONS/INFO RESOURCE MGMT	1,438	1,438	665	0	773	10,870	10,871	9,522	1	1,349	13,353	13,233	120
9.3.52	YMSCO RENT (Rent for DOE)	140	140	56	0	84	420	420	312	0	108	700	700	0
9.3.7	CONTRACT BUSINESS MANAGEMENT	385	385	385	0	0	6,633	6,633	5,564	0	1,069	16,279	12,083	3,196
1.0.10.11	REPOSITORY IMPACTS	92	94	108	2	(14)	1,086	1,086	894	0	192	1,257	1,199	58
TOTAL PROGRAM		33,688	44,532	26,469	10,844	18,063	236,234	245,948	227,229	9,714	18,719	334,607	357,978	(23,371)

Variances

- CWBS 9.1.3 Quality Assurance** - The cumulative cost variance of \$385/12% is due to underruns in labor and associated travel and relocation as a result of the January transfer of the audit function to OCRWM, the deletion of MPC potential vendor reviews, and the departure of one individual without replacement. There are no program impacts and no corrective action is required.
- CWBS 9.3.4/9.3.6 External Relations and Information Resource Management** - The cumulative cost variance of \$1349/12% is due to a \$355K/19% underrun in External Relations and a \$994/11% underrun in Information Resource Management. The cost underrun in External Relations is due to ODC purchases occurring later in the fiscal year than planned and staff vacancies. There is no significant impact or corrective action required. The cost underrun in Information Resource Management is due to delayed/deferred staffing, particularly in the Records area, and delayed booking of long-lead commitments, specifically for ADP equipment. There is no significant impact or corrective action required.
- CWBS 1.0.10 Repository Impacts** - The cumulative cost variance of \$191K/18% is due to delayed data for several options being analyzed for the Repository Impacts task. Based on the current schedule for the PEIS development, only the Existing Reactor, Greenfield Glass, and Greenfield Ceramic options will be analyzed for repository impacts. The M&O and the PEIS contractor are working closely to establish dates for submission of the analyses.

2. M&O MANAGEMENT STAFF ACTIVITIES

2.1 CONTRACTS AND SUBCONTRACTS

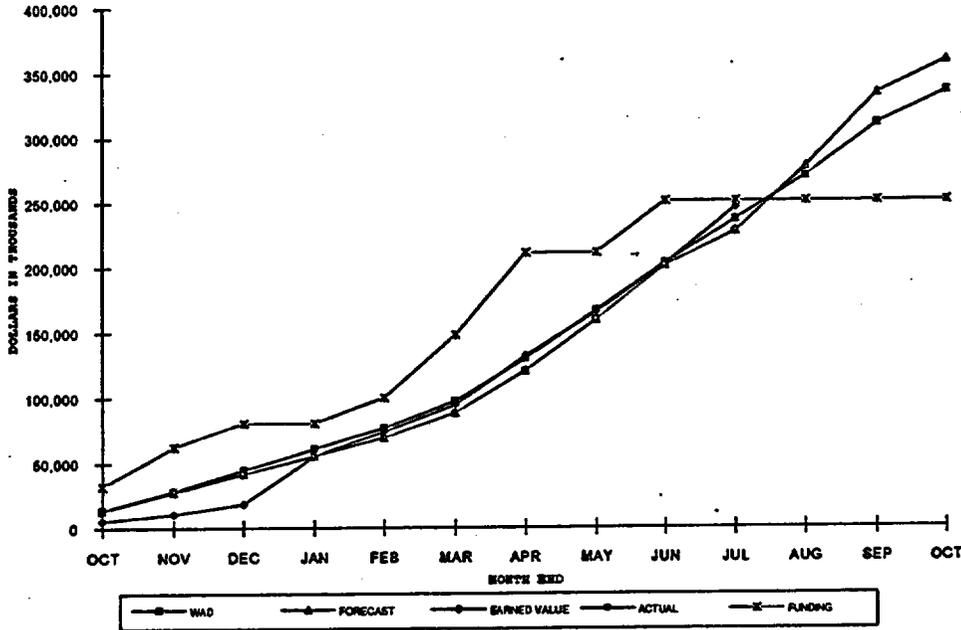
Contracts

- Issued the Contractor Consolidation Cost and Fee proposal to DOE on August 2, 1995, for \$118M.
- Issued formal notification to the Contracting Officer advising that the M&O will transition to total time accounting January 1, 1996.
- Coordinated a response to the Inspector General (IG) Audit findings relating to Retrospective Insurance Plans and Mortgage Discount Points.
- Processed funding data through the DOE Comptroller's office supporting the final Contractor consolidation reconciliation. The DOE field offices agreed to obligate all funds from October 1, 1994, for Lawrence Livermore National Laboratory (LLNL) and from April 1, 1995, for EG&G, Los Alamos National Laboratory (LANL), Lawrence Berkeley (LBL), Sandia National Laboratory (SNL), and REECO. Submitted a draft letter to RW-14 for their submittal to DOE procurement explaining TRW's need to back out the costs in the Financial Information System (FIS) for EG&G for October 1, 1994, through March 31, 1995.

Subcontracts

- Assisted in obtaining funding and approval to increase the value of Schlumberger (an SAIC subcontractor) so they could continue working beyond August 4, 1995. Will write a letter for the file explaining Schlumberger's cost increase since the M&O had already submitted a Prior Consent package to DOE.
- A stop-work order was issued by Westinghouse to their subcontractor PacTec August 3, 1995, for Quality Assurance issues. The stop work order was lifted on August 10, 1995. Two Corrective Action Requests (CARs) and a Deficiency Report (DR) related to the Quality Assurance (QA) surveillance conducted in Oak Ridge on GESCO activities will be issued. Requested corrective action be completed by September 15, 1995.
- Executed a consent to Assignment of Contract form to accommodate the acquisition of INTERA by DE&S. A new subcontract will be issued to the "new" INTERA starting with FY96.
- Completed a matrix of all expired TESS subcontracts that need to be closed out along with a schedule. The next step is to locate all the files and set up specific work items for each one to either initiate or complete the close-out process, depending on the circumstances, for each subcontract.

WASTE MANAGEMENT SYSTEMS



		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
MONTH	WAD	14,100	14,447	15,789	16,473	15,480	20,534	32,912	36,795	36,027	33,888	33,583	30,744	25,048
	FORECAST	13,892	13,830	14,465	13,859	13,613	19,047	32,388	38,747	41,521	26,469	49,388	56,631	24,728
	EARNED VALUE	5,434	5,193	7,926	36,855	17,893	21,043	37,893	33,060	36,319	44,532			
	MONTH ACTUAL	13,892	13,830	14,465	13,859	13,613	19,047	32,388	38,747	41,521	26,469			
	VAR/SCH	(8,675)	(8,254)	(7,843)	20,382	2,413	800	4,781	(3,735)	292	10,844			
	VAR/COST	(8,258)	(8,437)	(8,539)	23,196	4,280	1,996	5,305	(5,687)	(5,202)	18,053			
CUM	WAD	14,100	28,556	44,325	60,798	76,278	96,812	129,724	166,519	202,546	236,234	269,817	309,561	334,607
	FORECAST	13,892	27,322	41,787	55,446	69,059	88,106	120,494	159,241	200,762	227,231	276,619	333,250	357,978
	EARNED VALUE	5,434	10,627	18,553	55,408	73,301	94,344	132,037	165,097	201,416	245,948			
	ACTUAL	13,892	27,322	41,787	55,446	69,059	88,106	120,494	159,241	200,762	227,229			
	VAR/SCH	(8,675)	(17,825)	(25,772)	(5,390)	(2,977)	(2,468)	2,313	(1,422)	(1,130)	9,714			
	VAR/COST	(9,258)	(16,695)	(23,234)	(35)	4,242	6,238	11,543	5,856	654	18,719			
FUNDING	FY85 FUNDING	30,000	50,534	59,534	50,534	79,096	127,047	190,048	190,048	229,886	229,886	229,886	229,886	229,886
	PREV. FUNDED	2,508	2,508	20,992	20,992	20,992	20,992	20,992	20,992	20,992	20,992	20,992	20,992	20,992
	TOTAL FUNDING	32,508	62,042	80,526	80,526	100,088	148,039	211,040	211,040	250,878	250,878	250,878	250,878	250,878

Total Program Financial Status

1.3 PROGRAM MANAGEMENT ANALYSIS CRITERIA

Variance analysis thresholds for FY95 are calculated at the WAD level. These variance thresholds are +/- 10% for the cumulative cost and schedule.

The data is provided as a cost graph at the WAD level. Graphs are also provided at CWBS levels 2 and 3 for areas that contribute to a variance breaking a threshold at the WAD levels. The data contained in the graph represents budget, earned value, and forecast for new FY95 work, approved deferred work from FY94, and carryover work for FY94. The actual costs represent all of the above plus the FY94-95 carryover. Cost graphs also depict FY95 funding, previously funded values (FY94-95 deferred and carryover work), and a total with the two funding sources combined.

Basic and award fees will be shown in Appendix B, B&R #DB093700, Contract Business Management, which includes lease termination funds. These fees have not been budgeted nor booked since the FY95 Annual Plan and Fee Proposal have not been negotiated.

1.4 PROGRAM MANAGEMENT PERFORMANCE CRITERIA

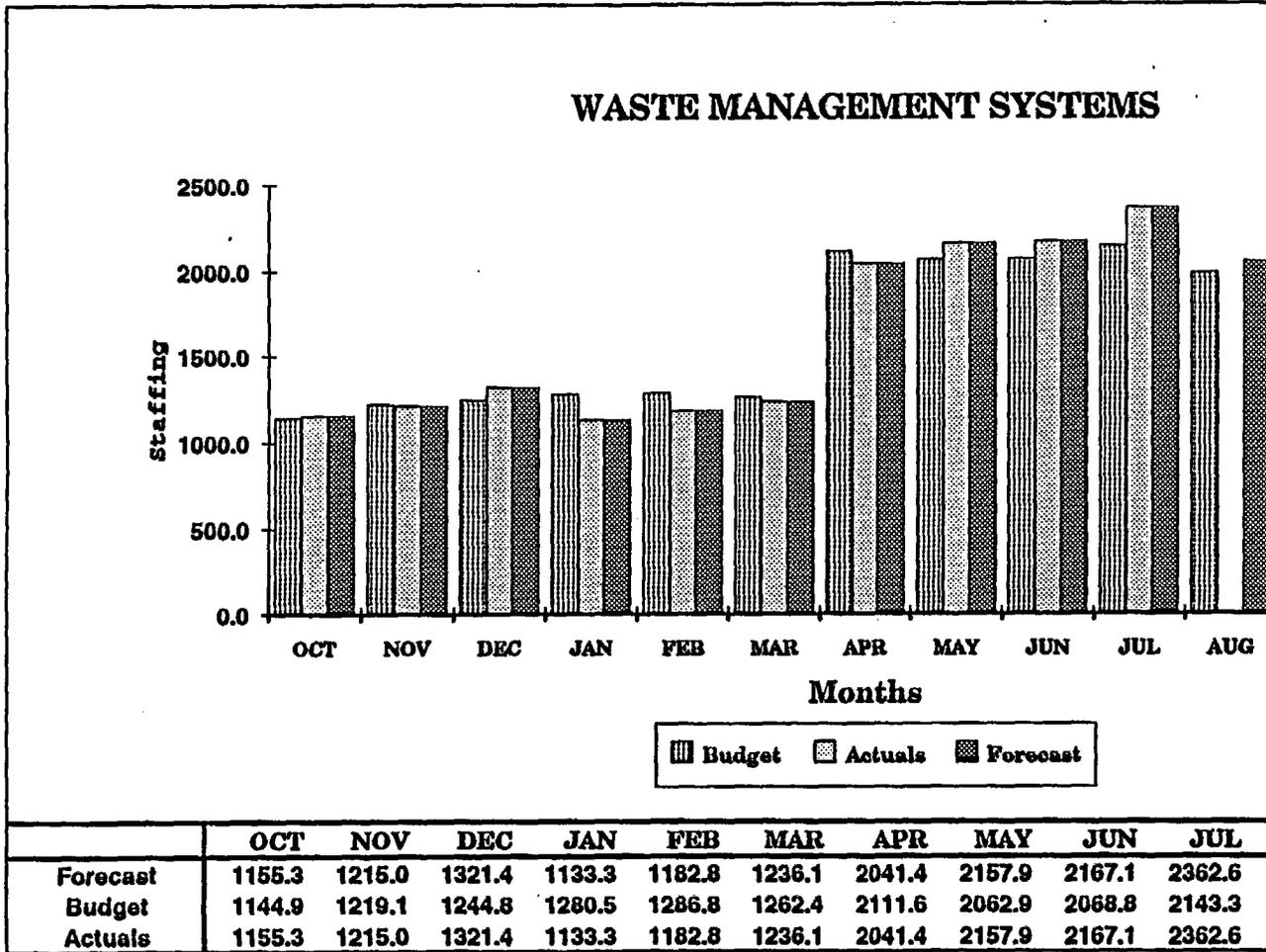
Progress During Report Period lists activities related directly to the B&R. These activities represent significant M&O contributions and involvement and include:

- Progress toward achieving the milestones referred to as "superstones"
- Progress in accomplishing the applicable Performance Evaluation Plan (PEP) criteria
- Actions to correct previous deficiencies
- Significant developments that required expenditure of unplanned resources
- Significant presentations and publications.

Issues and Concerns

- Actions impeding progress toward achieving milestones
- Issues requiring DOE involvement or resolution
- Problems with program or project performance.

Total Program Staffing



1. INTRODUCTION

1.1 PURPOSE AND SCOPE

This Management and Operating (M&O) Contractor's Monthly Summary Report (MSR) has been prepared to provide both the M&O and Office of Civilian Waste Management (OCRWM) managers with activity and cost updates. The MSR is a compilation of reports that addresses both the M&O Management and Contract Work Breakdown Structure (CWBS) (direct) elements. Each CWBS area reports Budget and Reporting (B&R) progress by describing activities during the reporting period, publications and presentations, and documenting issues and concerns.

1.2 ORGANIZATION OF THE MONTHLY STATUS REPORT

Section 1, Introduction, describes the purpose, scope, and organization of the M&O MSR and the criteria for Program Management Analysis and Performance.

Section 2, M&O Management Staff Activities, provides monthly activity summaries from Contracts and Subcontracts (C&SC), Finance and Administration (F&A), Human Resources (HR), Information Management Services (IMS), and Management Systems (MS) non-B&R activities when these activities meet the Program Management Performance Criteria stated in paragraph 1.4, below.

Section 3, Major System Acquisition (MSA) Projects, provides detailed summary reports from the Yucca Mountain Site Characterization Project (YMP) and the Waste Acceptance, Storage and Transportation (WAST) Project CWBS areas. Cost and schedule variances are reported following the Program Management Organization section of YMP and Project Integration Section of WAS with accompanying data charts.

Section 4, Program Support (PS) provides Work Authorization Directive (WAD) level CWBS reports and includes Program Control and Administration (PC&A) Program, Quality Assurance (QA), Systems Integration, Regulatory and Licensing (R&L), Strategic Planning (SP), International Waste Management Technology (IWMT), External Relations (ER), IMS, and Repository Impacts. Cost and schedule variances are reported at the end of each WAD section.

Appendix A, FY95 M&O Major Deliverable Status, identifies all major M&O deliverables as defined in the WADs. It further shows which items were delivered early, on-time, late, and/or have a changed date through the Baseline Change Request (BCR) process.

Appendix B, M&O Monthly Progress/Update Summary, provides monthly financial reporting data representing the B&R cumulative values for budgets, forecasts, Financial Information System (FIS) actuals, and variances.

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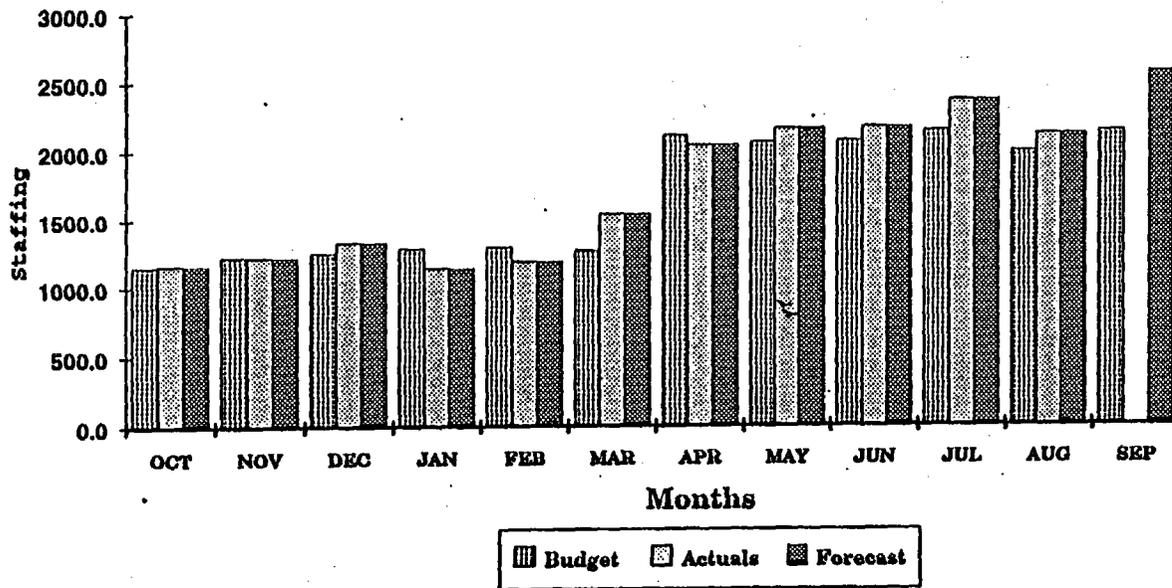
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Total Program Staffing

WASTE MANAGEMENT SYSTEMS

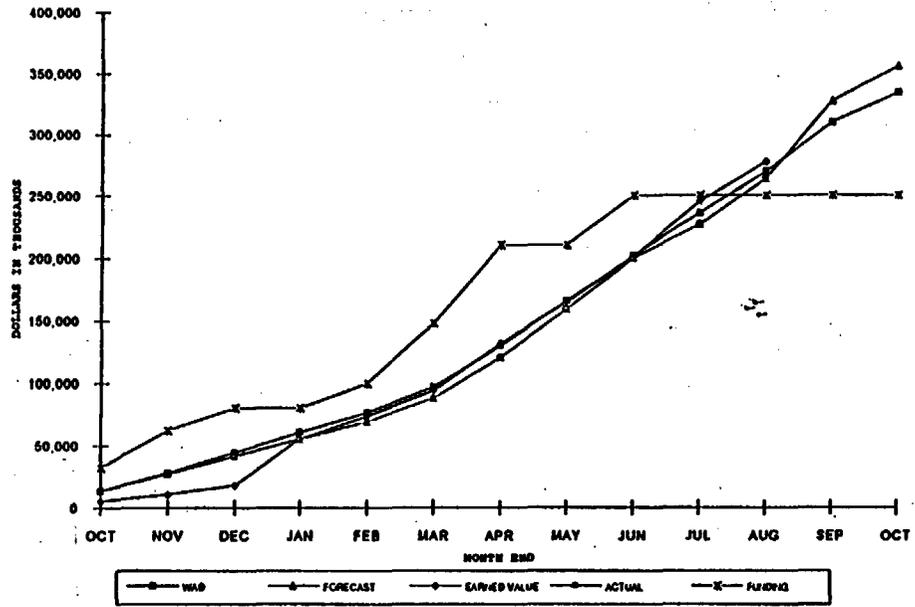


	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG
Forecast	1154.7	1215.0	1321.4	1133.2	1182.7	1536.0	2041.4	2157.9	2167.1	2362.5	2113.4
Budget	1144.9	1219.1	1244.8	1280.5	1286.8	1262.4	2111.6	2062.9	2068.8	2143.3	1987.4
Actuals	1154.7	1215.0	1321.4	1133.2	1182.7	1536.0	2041.4	2157.9	2167.1	2362.5	2113.4

1. Introduction

Total Program Financial Status

WASTE MANAGEMENT SYSTEMS



		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MONTH	WAD	14,100	14,452	15,760	16,470	15,483	20,530	32,910	36,795	36,027	33,686	34,049	39,534
	FORECAST	13,692	13,630	14,465	13,659	13,613	19,047	32,368	36,747	41,521	26,469	37,308	63,336
	EARNED VALUE	5,434	5,183	7,920	36,855	17,893	21,043	37,682	33,080	36,302	44,508	32,422	
	MONTH ACTUAL	13,692	13,630	14,465	13,659	13,613	19,047	32,368	36,747	41,521	26,469	37,308	
	VAR/SCH	(8,675)	(8,259)	(7,843)	20,385	2,410	513	4,772	(3,735)	275	10,922	(1,827)	
	VAR/COST	(8,258)	(8,437)	(8,539)	23,196	4,780	1,998	5,204	(5,687)	(5,219)	18,039	(4,887)	
CUM	WAD	14,100	28,561	44,330	60,800	76,283	96,813	129,723	166,518	202,545	236,231	270,280	308,814
	FORECAST	13,692	27,322	41,787	55,446	69,059	88,106	120,494	159,241	200,762	227,231	264,540	327,878
	EARNED VALUE	5,434	10,627	18,553	55,408	73,301	94,344	132,026	165,086	201,388	245,896	278,318	
	ACTUAL	13,692	27,322	41,787	55,446	69,059	88,106	120,494	159,241	200,762	227,231	264,540	
	VAR/SCH	(8,675)	(17,934)	(25,777)	(5,392)	(2,982)	(2,489)	2,303	(1,432)	(1,157)	8,665	8,038	
	VAR/COST	(8,258)	(16,665)	(23,234)	(38)	4,242	6,238	11,532	5,845	826	18,865	13,778	
FUNDING	FY95 FUNDING	30,000	59,534	59,534	59,534	70,098	127,047	190,048	190,048	220,886	220,886	220,886	220,886
	PREV. FUNDED	2,508	2,508	20,992	20,992	20,992	20,992	20,992	20,992	20,992	20,992	20,992	20,992
	TOTAL FUNDING	32,508	62,042	80,526	80,526	100,068	148,039	211,040	211,040	250,878	250,878	250,878	250,878

1. INTRODUCTION

1.1 PURPOSE AND SCOPE

This Management and Operating (M&O) Contractor's Monthly Summary Report (MSR) has been prepared to provide both the M&O and OCRWM managers with activity and cost updates. The MSR is a compilation of reports that addresses both the M&O Management and Contract Work Breakdown Structure (CWBS) (direct) elements. Each CWBS area reports Budget and Reporting (B&R) progress by describing activities during the reporting period, publications and presentations, and documenting issues and concerns.

1.2 ORGANIZATION OF THE MONTHLY STATUS REPORT

Section 1, Introduction, describes the purpose, scope, and organization of the M&O MSR and the criteria for Program Management Analysis and Performance.

Section 2, M&O Management Staff Activities, provides monthly activity summaries from Contracts and Subcontracts (C&SC), Finance and Administration (F&A), Human Resources (HR), Information Management Services (IMS), and Management Systems (MS) non-B&R activities when these activities meet the Program Management Performance Criteria stated in paragraph 1.4, below.

Section 3, Major System Acquisition (MSA) Projects, provides detailed summary reports from the Yucca Mountain Site Characterization Project (YMP) and the Waste Acceptance, Storage and Transportation (WAST) Project CWBS areas. Cost and schedule variances are reported following the Program Management Organization section of YMP and Project Integration Section of WAST with accompanying data charts.

Section 4, Program Support (PS) provides Work Authorization Directive (WAD) level CWBS reports and includes Program Control and Administration (PC&A) Program, Quality Assurance (QA), Systems Integration, Regulatory and Licensing (R&L), Strategic Planning (SP), International Waste Management Technology (IWMT), External Relations (ER), IMS, and Repository Impacts. Cost and schedule variances are reported at the end of each WAD section.

Appendix A, FY95 M&O Major Deliverable Status, identifies all major M&O deliverables as defined in the WADs. It further shows which items were delivered early, on-time, late, and/or have a changed date through the Baseline Change Request (BCR) process.

Appendix B, M&O Monthly Progress/Update Summary, provides monthly financial reporting data representing the B&R cumulative values for budgets, forecasts, Financial Information System (FIS) actuals, and variances.

completed in the next fiscal year. Data for the PEIS and Technical Summary documents will be provided by November 1995.

1.3 PROGRAM MANAGEMENT ANALYSIS CRITERIA

Variance analysis thresholds for FY95 are calculated at the WAD level. These variance thresholds are +/- 10% for the cumulative cost and schedule.

The data is provided as a cost graph at the WAD level. Graphs are also provided at CWBS levels 2 and 3 for areas that contribute to a variance breaking a threshold at the WAD levels. The data contained in the graph represents budget, earned value, and forecast for new FY95 work, approved deferred work from FY94, and carryover work for FY94. The actual costs represent all of the above plus the FY94-95 carryover. Cost graphs also depict FY95 funding, previously funded values (FY94-95 deferred and carryover work), and a total with the two funding sources combined.

Basic and award fees will be shown in Appendix B, B&R #DB093700, Contract Business Management, which includes lease termination funds. These fees have not been budgeted nor booked since the FY95 Annual Plan and Fee Proposal have not been negotiated.

1.4 PROGRAM MANAGEMENT PERFORMANCE CRITERIA

Progress During Report Period lists activities related directly to the B&R. These activities represent significant M&O contributions and involvement and include:

- Progress toward achieving the milestones referred to as "superstones"
- Progress in accomplishing the applicable Performance Evaluation Plan (PEP) criteria
- Actions to correct previous deficiencies
- Significant developments that required expenditure of unplanned resources
- Significant presentations and publications.

Issues and Concerns

- Actions impeding progress toward achieving milestones
- Issues requiring DOE involvement or resolution
- Problems with program or project performance.

Performance Measurement Cost and Schedule Variance

WASTE MANAGEMENT SYSTEM

FY 1995
M/JE AUGUST
OCRWMS M&O PMS DATA (\$000)

WBS	TITLE	CURRENT MONTH					FISCAL YEAR-TO-DATE					AT COMPLETE		
		BUDGET	EARNED VALUE	ACTUALS	VARIANCE		BUDGET	EARNED VALUE	ACTUALS	VARIANCE		BUDGET	ACT	VAC
					SCHED	COST				SCHED	COST			
1.2	WMP	27,066	25,482	31,066	(1,584)	(5,584)	205,799	215,202	208,217	9,403	6,985	237,184	262,934	(25,750)
3.0	WAST PROJECT	2,938	2,990	2,367	62	623	24,349	23,601	20,700	(748)	2,901	45,535	45,127	408
9.1	PROGRAM QUALITY ASSURANCE	358	358	328	0	30	3,451	3,451	3,036	0	415	3,803	3,482	321
9.2/9.3.2/9.3.3/9.3.5	PROGRAM MANAGEMENT & INTEGRATION	1,803	1,708	1,794	(95)	(86)	15,790	15,171	14,541	(619)	630	17,744	17,251	493
9.3.4/9.3.6	EXTERNAL RELATIONS/INFO RESOURCE MGMT	1,270	1,270	1,241	0	29	12,140	12,141	10,763	1	1,378	13,353	13,189	164
9.3.52	YMSCO RENT (Rent for DOE)	140	140	56	0	84	560	560	367	0	193	700	699	1
9.3.7	CONTRACT BUSINESS MANAGEMENT	385	385	385	0	0	7,018	7,018	5,949	0	1,069	15,280	12,063	3,197
1.0.10.11	REPOSITORY IMPACTS	90	90	72	0	18	1,175	1,174	965	(1)	209	1,257	1,012	245
TOTAL PROGRAM		34,049	32,422	37,309	(1,627)	(4,857)	270,280	278,318	264,540	8,038	13,778	334,856	355,777	(20,921)

Variances

- CWBS 3.0 WAST Project** - The cumulative cost variance of \$2903/12% is due primarily to Project Management attrition, less support required for EIS activities than originally anticipated, Monitored Retrievable Storage (MRS) Institutional requirements placed on hold or cancelled, late booking of FY 94 carryover costs, delayed start of the Legal Weight Truck (LWT) Tractor Test, and delayed tasking and billing lags for work performed at the national laboratories.
- CWBS 9.1.3 Quality Assurance** - The cumulative cost variance of \$415K/12% is due to underruns in labor and associated travel and relocation as a result of the January transfer of the audit function to OCRWM, the deletion of MPC potential vendor reviews, and the departure of one individual without replacement. There are no program impacts, and no corrective action is required. Currently forecasting \$321K underrun at year-end.
- CWBS 9.3.4/9.3.6 External Relations and Information Resource Management** - The cumulative cost variance of \$1,378/11% is due to a \$365K/18% underrun in External Relations and a \$1,013/10% underrun in Information Resource Management. The cost underrun in External Relations is due to Other Direct Charges (ODC) purchases occurring later in the fiscal year than planned and staff vacancies. The cost underrun in Information Resource Management is due to delayed or deferred staffing and delayed booking of long-lead Automated Data Processing (ADP) commitments. Technical Direction Letters are being processed for work being completed in FY96. Purchase order commitments not costed by fiscal-year end will book in FY96.
- CWBS 1.0.10 Repository Impacts** - The cumulative cost variance of \$209K/18% is due to continued delays in inputs to the Repository Impacts. Based on the current schedule for the Programmatic Environmental Impact Statement (PEIS) development, only the Existing Reactor, Greenfield Glass, and Greenfield Ceramic options will be evaluated for repository impacts. A Technical Direction Letter is being prepared for the evaluation of the other waste forms to be

**2. M&O
Management Staff
Activities**

System Planning and Integration

- Delivered a camera-ready copy of the Program Test and Evaluation Master Plan (TEMP), Revision 0. The TEMP, which was approved by the Program Baseline Change Control Board (PBCCB) on August 17, 1995, provides the initial definition of program level policy on OCRWM test activities.

Mined Geologic Disposal System (MGDS) Development

- Submitted the draft Uncanistered Spent Nuclear Fuel Section of the Waste Package Conceptual Design Report as scheduled. This submittal is the third of three draft sections submitted to Yucca Mountain Site Characterization Office (YMSCO) for informal review. Will compile the draft sections into the Waste Package Conceptual Design Report that will be formally reviewed by the M&O in late September and submitted to YMSCO in January 1996.
- Delivered the topical report "Seismic Design Methodology for a Geologic Repository at Yucca Mountain" to DOE on August 28, 1995. This "superstone" report, in preparation for more than 1 year, describes the seismic design methodology and criteria that the DOE will propose for a geologic repository at Yucca Mountain.
- Delivered the Total System Performance Analysis (TSPA) 1995 to DOE on August 31, 1995. TSPA 1995 will form the basis of Section 6.4 of the Multi-Purpose Canister (MPC) Part 60 Design Considerations Report: Preliminary Assessment of Total Repository System Performance.

Environmental Safety and Health

- The Notice of Intent for the Repository Environmental Impact Statement (EIS) was approved by the DOE Office for Environment Safety and Health (EH1) and published in the Federal Register on August 7, 1995.

Waste Acceptance, Storage and Transportation (WAST) Project

- Delivered the preliminary CRWMS Program concept for integration of the Dry Transfer System (DTS) and the DTS video to RW-40. The report identifies the advantages of using the DTS at purchaser sites, selected CRWMS Program Technology Development projects, and an interim storage facility. In addition, completed the DTS static display model.
- Delivered the preliminary DTS Licensing Strategy to RW-40. The paper concludes licensing a DTS would be more difficult than initially thought, but is feasible.

2. M&O MANAGEMENT STAFF ACTIVITIES

2.1 CONTRACTS AND SUBCONTRACTS

Contracts

- Reviewed the Contractor Consolidation Cost and Fee proposal. Delivery to DOE is scheduled for August 1, 1995.

Subcontracts

- Completed all documentation for the Colorado School of Mines subcontract.
- Completed the currently negotiated funding amounts for FY95 by issuing incremental funding to Science Applications International Corporation (SAIC) and Integrated Resources Group (IRG).

2.2 FINANCE AND ADMINISTRATION

- Provided input to Travel Reduction Task Team for DOE FY96 Plan.
- Completed reporting to DOE for Payment Equal to Taxes (PETT) Program.
- Instituted an FY96 Commitment Tracking Working Team.

2.3 HUMAN RESOURCES

- Facilitated an M&O Senior Management Offsite in Las Vegas on July 13, 1995, which focused on trust, teambuilding, and the development of M&O operating principles.
- Developed budget reduction scenarios for DOE.
- Facilitated Program Integration and Decision Making Natural Working Group (NWG) that is examining the roles and responsibilities of the technical groups in the program.
- Conducted 15 courses for 276 students in July.
- Conducted the first Management of Personal Growth (MPG) ongoing development workshop for employees who attended MPG a year ago.

2.4 ISSUES AND CONCERNS

- None.

EXECUTIVE SUMMARY

General Managers's Summary:

Significant achievements in tunneling, repository design, and life cycle costing were realized during the month of August. They are briefly discussed in the following paragraphs and indicate that the program is proceeding satisfactorily.

Tunneling continues to exceed expectations and remains well ahead of schedule. The Tunnel Boring Machine (TBM) was idle for 10 days to perform maintenance and continue installing modifications, yet still made excellent progress. Completion of the conveyor system and modifications made to the TBM over the course of the past six weeks have improved its performance measurably.

The "Seismic Design Methodology for a Repository at Yucca Mountain" topical report represents considerable effort and is an important step toward approval of DOE's approach to repository design and licensing.

The final draft of the Total System Life Cycle Cost (TSLCC) analysis improved from the preliminary analysis by taking advantage of better information and tools than were available when the preliminary analysis was conducted. The TSLCC provides a much needed baseline cost for the current program against which the cost of all proposed program changes can be compared.

Highlights for this reporting period are as follows:

ESF Construction

- The TBM reached a major project milestone August 22, 1995, reaching construction station (CS) 12+80 meters (m) 5 weeks and 4 days ahead of schedule. The TBM advanced 237.2m/778 ft for the month, ultimately reaching CS 14+14.8 m/4,640 ft. It also achieved the best single day, 45.7 m/150 ft, and single week, 107.5 m/352.6 ft, advancements to date.
- The design for Alcove #3 was approved and construction completed on the alcove this period. The final length of Alcove #3 was 36.5 meters (119.7 feet). Final mapping of the alcove is underway, and planning for the next alcove (Alcove #4) is approaching completion.

Systems Analysis

- Published the final draft 1995 TSLCC analysis on August 14, 1995. The final draft TSLCC total cost is \$33.1B (FY94 dollars), including \$17.3B for the Yucca Mountain repository. The repository cost reflects a cost reduction of \$1.33B from the previous estimate published in May 1995. Modeling improvements and design related updates accounted for \$1.1B of the reduction. The remainder resulted from implementation of several Independent Cost Estimate (ICE) suggestions.

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WBS: 9.3.7
QA: N/A

**Civilian Radioactive Waste Management System
Management & Operating Contractor**

Monthly Summary Report

August 1995

Prepared for:

**U.S. Department of Energy
Office of Civilian Radioactive Waste Management
1000 Independence Avenue SW.
Washington, DC 20585**

Prepared by:

**TRW Environmental Safety Systems Inc.
2650 Park Tower Drive
Suite 800
Vienna, Virginia 22180**

**3. Major System
Acquisition
Projects**

Figure B-1. Monthly Progress/Update Summary (Continued)

M&O Monthly Progress/Update Summary (\$K) as of JULY 31, 1995

B&R	B&R Title	0	1	2	3	2-3	4	1-3	0-3
		Total Budget FY95/Defer/ Commit	Cum to Date Budget/FY95/ Defer/Commit	Cum to Date Forecast/FY 95 Defer/Commit	Cum to Date Actuals	Variance (Fore-Act)	Total Funding- FY 95 & Previ- ously Funded	Variance (Cum Budget - Act)	Variance (Total Budget - Act)
DB0303010	Waste Accept Process/Oprtns	2,942	2,265	2,170	2,170	0	0	95	772
DB0303020	Waste Acceptance Econ. Stud.	128	78	88	68	0	0	5	60
DB0303030	Waste Acceptance Data Collect.	993	588	614	614	0	0	-26	379
	Total Waste Acceptance	4,063	2,926	2,852	2,852	0	0	74	1,211
	% of WA			97.47%	97.47%	0.00%		2.53%	
	TOTAL 3.0 WAST PROJECT	45,288	31,409	18,330	18,330	0	44,409	5,079	26,958
DB0910030	Program Quality Assurance	3,802	3,093	2,707	2,707	0	3,188	995	1,095
	% of PGA			87.52%	87.52%	0.00%		12.48%	
DB0920011	Systems Engineering	6,523	5,371	4,717	4,717	0	0	654	1,806
DB0920012	Systems Planning & Integration	0	0	0	0	0	0	0	0
DB0920013	Configuration Management	1,208	959	971	971	0	0	-12	297
	Total Systems Integration	7,731	6,330	5,688	5,688	0	6,727	643	2,043
DB0920021	Regulatory Policy & Requirements	695	557	592	592	0	0	-35	103
DB0920022	Regulatory Integration	1,663	1,279	1,195	1,195	0	0	84	468
	Total Regulatory & Licensing	2,358	1,836	1,787	1,787	0	2,481	49	571
	% of R & L			97.93%	97.93%	0.00%		2.67%	
DB0982000	Strategic Planning	1,369	1,106	1,067	1,067	0	1,117	89	302
DB0983000	Int'l Waste Management Tech.	4,311	3,057	2,880	2,880	0	574	177	1,431
	Total Strategic Planning & Int'l Waste	5,680	4,163	3,947	3,947	0	1,691	216	1,733
	% of SP & IW			94.81%	94.81%	0.00%		5.19%	
GA0101011	Repository Impacts	1,257	1,088	894	894	0	1,303	192	863
	% of RI			82.92%	82.92%	0.00%		17.68%	
DB0984000	External Relations	2,292	1,978	1,524	1,524	0	1,845	364	768
	% of ER			81.15%	81.15%	0.00%		18.85%	
DB0985000	Program Control & Admin.	1,975	1,658	1,327	1,327	0	2,498	931	649
	% of PC&A			80.04%	80.04%	0.00%		19.96%	
DB0986010	Information Mgmt Services	11,081	8,992	7,999	7,999	0	8,600	993	3,082
	% of IMS			88.96%	88.96%	0.00%		11.04%	
DB0987000	Contract Business Mgmt	15,279	8,933	5,564	5,564	0	15,068	1,089	9,718
	% of CBM			88.86%	88.86%	0.00%		11.14%	
	M&O Totals	393,909	295,818	226,917	226,917	0	280,879	6,899	106,988
	M&O Total % of WAD			98.23%	98.23%	0.00%		3.77%	
	M&O Total % of NB&R			87.98%	87.98%	0.00%		2.67%	

NOTE: FIS actuals may not agree with contractual actuals since the FIS cumulative-to-date actuals include depreciation costs. Contractual cumulative-to-date costs reflect total outlays of cash for capital and expenses only. As a result, these two methods of financial reporting may not necessarily agree.

**3.1 Yucca Mountain
Site
Characterization
Project**

Figure B-1. Monthly Progress/Update Summary

M&O Monthly Progress/Update Summary (\$K) as of JULY 31, 1995

B&R	B&R Title	0	1	2	3	2-3	4	1-3	0-3
		Total Budget FY95/Defer/ Commit	Cum to Date Budget/FY95/ Defer/Commit	Cum to Date Forecast/FY 95 Defer/Commit	Cum to Date Actuals	Variance (Fore-Act)	Total Funding FY 95 & Previ- ously Funded	Variance (Cum Budget - Act)	Variance (Total Budget - Act)
DB0102010	YMP Systems Engineering	8,724	7,442	6,177	6,177	0	0	1,285	2,547
DB0102020	YMP Waste Package	9,716	8,051	6,886	6,886	0	0	1,665	3,830
DB0102030	YMP Site Investigations	44,935	33,172	33,529	33,529	0	0	-657	11,108
DB0102040	YMP Repository	8,931	7,416	6,227	6,227	0	0	1,189	2,704
DB0102050	YMP Regulatory	22,897	18,299	16,471	16,471	0	0	1,827	6,426
DB0102060	YMP Exploratory Studies Fac.	77,204	53,536	56,177	56,177	0	0	-2,641	21,027
DB0102070	YMP Test Facilities	9,129	6,862	7,721	7,721	0	0	-859	1,408
DB0102090	YMP Project Management	11,460	9,146	9,624	9,624	0	0	-478	1,836
DB0102130	YMP Environ., Safety & Health	16,882	13,322	13,894	13,894	0	0	-62	3,498
DB0102140	YMP Institutional	4,788	3,690	3,283	3,283	0	0	407	1,505
DB0102150	YMP Support Services	8,939	7,013	7,377	7,377	0	0	-364	1,562
DB0102160	YMP Quality Assurance	5,828	4,433	4,404	4,404	0	0	29	1,424
DB0102170	YMP Information Management	7,749	6,257	6,090	6,090	0	0	267	1,659
	Total YMP	237,182	175,738	177,150	177,150	0	163,076	1,568	60,032
	% of YMP			99.11%	99.11%	0.00%		0.69%	
DB0301010	MRS Systems Engineering	954	742	575	575	0	0	167	379
DB0301030	MRS Site Investigations	49	34	10	10	0	0	24	33
DB0301040	MRS MRS Facility	0	0	0	0	0	0	0	0
DB0301050	MRS Regulatory	1,953	1,478	1,323	1,323	0	0	155	630
DB0301070	MRS Engineering Development	24,178	5,628	5,260	5,260	0	0	368	18,913
DB0301090	MRS Project Management	1,804	1,453	1,178	1,178	0	0	275	626
DB0301110	MRS Quality Assurance	194	156	133	133	0	0	23	61
DB0301120	MRS Information Management	0	0	0	0	0	0	0	0
DB0301130	MRS Environ., Safety & Health	1,474	1,184	988	988	0	0	196	488
DB0301140	MRS Institutional	821	568	300	300	0	0	268	521
DB0301150	MRS Support Services	0	0	0	0	0	0	0	0
	Total MRS	31,416	11,246	9,797	9,797	0	0	1,476	21,649
	% of MRS			86.87%	86.87%	0.00%		13.15%	
DB0302010	Trans. Systems Engineering	633	386	388	388	0	0	-2	245
DB0302020	Trans. Casks	3,431	2,800	2,479	2,479	0	0	821	952
DB0302040	Trans. Support Systems	2,307	1,582	901	901	0	0	681	1,406
DB0302050	Trans. Regulatory	169	85	20	20	0	0	65	149
DB0302090	Trans. Project Management	734	607	550	550	0	0	57	184
DB0302110	Trans. Quality Assurance	235	171	147	147	0	0	24	88
DB0302120	Trans. Info Management	48	41	4	4	0	0	37	44
DB0302130	Trans. Environ., Safety & Health	1,208	754	377	377	0	0	377	828
DB0302140	Trans. Institutional	1,047	814	845	845	0	0	-31	202
DB0302150	Trans. Support Services	0	0	0	0	0	0	0	0
	Total Transportation Systems	9,807	7,240	5,711	5,711	0	0	1,529	4,096
	% of TRANS. SYS.			78.66%	78.66%	0.00%		21.12%	

NOTE: FIS actuals may not agree with contractual actuals since the FIS cumulative-to-date actuals include depreciation costs. Contractual cumulative-to-date costs reflect total outlays of cash for capital and expenses only. As a result, these two methods of financial reporting may not necessarily agree.

3. MAJOR SYSTEM ACQUISITION PROJECTS

3.1 YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT CWBS 1.2

MANAGER: L. D. Foust

3.1.1 Engineering and Integration Operations

MANAGER: R. D. Snell

OBJECTIVE(S): Provide overall Systems Engineering services supporting the Yucca Mountain Site Characterization Project (YMP). Provide Exploratory Studies Facility (ESF), Repository, and Waste Package Design and Construction support services (MGDS Development). Provide Repository Project Engineering services. Conduct product integrity technical assurance and cost effectiveness evaluation and analysis. Provide strategic planning, technical support and integration for the YMP.

3.1.1.1 Progress During Report Period

MGDS Development

- Supported the OCRWM performance-based Audit of the Waste Package (WP) Design Department's Advanced Conceptual Design process. The audit was conducted by the Yucca Mountain Quality Assurance Division and was observed by the Nuclear Regulatory Commission (NRC) and State of Nevada representatives. Interviewed all individuals involved in the WP Design process, thoroughly inspected all design products, evaluated interface processes with the national laboratories and reviewed controls for selecting and reviewing design methods and materials, design analysis, and quality assurance controls. The overall audit rating was Satisfactory (Effective). The NRC post-audit evaluation was positive, and representatives were satisfied with the M&O design progress.
- Delivered the fourth of the four draft sections of the Waste Package Conceptual Design Report, Unclustered Fuel (UCF) Disposal Container, to Yucca Mountain Site Characterization Office (YMSCO) on July 28, 1995.
- Submitted the status report on the pitting corrosion modeling work as project deliverable MOL 189. Submitted the draft report on the degradation mode survey on Monel 400 as project deliverable MOL 181. This report will be published as part of the series of degradation mode surveys of the current candidate container materials following technical and programmatic review.
- Continued weight loss, corrosion attack morphology, and solution chemistry analyses for the first sets of scoping tests that were run. Another set of scoping tests, containing specimens of

APPENDIX B

borated stainless steel, was initiated at 90°C and a pH of 4. The tests demonstrated that an unwelded specimen and a specimen of stainless steel are apparently unattacked; however, a welded borated stainless steel specimen was attacked. Analysis of boron loss is underway. Most of the ceramic specimens and the hafnium-zirconium alloy were unaffected by the test.

- Issued the "Recommended Layout Concepts Report" (TM573), a DOE Superstone, on July 27, 1995. This completes the Level III Milestone deliverable.
- Issued the "Emplacement Equipment/Concept Development" (TM450) to DOE on July 28, 1995. This completes the Level III Milestone deliverable.
- Issued the "Surface Facilities Cost Estimate Update Report" (TM429) to DOE on July 20, 1995. This completes the Level III Milestone deliverable.
- Issued the "Subsurface Cost Estimate Update Report" (TM479) to DOE on July 13, 1995. This completes the Level III Milestone deliverable.
- Issued the "Repository Shaft/Ramp Siting Options Report" (TM537) to DOE on July 13, 1995. This completes the Level III Milestone deliverable.
- Completed Nevada Line Procedures (NLPs) 3-10, 3-25, and 3-26. NLPs 3-10 and 3-25 were effective July 24 and NLP 3-26 was effective July 21, 1995. All three procedures were written based on changes to QAP-3-4 "Baseline Control." Each procedure addresses particular actions unique to the Nevada engineering departments.
- Conducted a Waste Package Design team meeting to review the MPC spent nuclear fuel (SNF) loading curve. Using the method defined in the "Burnup Credit Topical Report, Actinides Only" the loading curve encompassed a small portion of the SNF. In addition to burnup credit, supplemental neutron absorbers will allow the MPC to encompass over 50 percent of the SNF. Conducted calculations using disposable control rod assemblies in the MPC loading curve models. Results show that the MPC design based upon the "minimum" specification design features could accept a large portion of the PWR SNF inventory.
- Received the June Closure Weld Development status report and plate material. Completed conceptual designs of the weld joint and machined the first set of weld preps. Continued to develop metallurgical testing procedures and look for transducers able to withstand the radiation during NDE testing and develop metallurgical testing procedures.

Product Integrity

- The Management Plan for Resolving Quality Affecting Issues Resulting from M&O and DOE Audits and Surveillances (paragraph 4.5.2) requires an external review of all quality-affecting design products. Accordingly, the OPI organization has been requested to assist in the reviews. Reviewed 12 design products during July, resulting in 74 recommendations.



Appendix B

Repository Alternative Conceptual Design

- Conducted a thermal test planning meeting with the MGDS Development, Systems Engineering, ESF Design, and Thermal Test Organization leads. The emphasis of the meeting on early involvement of affected organizations in the test planning and design process, particularly relative to the significant degree of coordination and risk reduction necessary for these critical in-situ thermal tests. Discussed details of the tests, including a suggestion for high-level management review of the test prior to execution. Identified a need for a more detailed schedule showing affected organization participation.

Systems Engineering

- Completed the Affected Document Notice investigation to Revision 1 of the Exploratory Studies Facility Design Requirements (ESFDR) for ICN-2. The M&O will be revising all Package 2C "Q" Analyses to match the new ESFDR. A side-by-side comparison will also be conducted to determine any other impacts to Non-Q Analyses for other permanent items.
- Presented the status of the Inverts Reassessment Systems Study to the Project Interface Control Working Group (ICWG). Implementation of the Inverts Reassessment Study recommendations will be deferred until results of the Determination Items of Importance (DIE) study to assess the feasibility of proceeding with non-Q permanent ground support are released.
- Submitted the final report on the Calico Hills Study to the DOE for acceptance review. The report "Systems Study for Characterizing the Calico Hills Nonwelded Hydrogeologic Unit at Yucca Mountain, Nevada, Rev. 00," fulfills deliverable number TM112.
- Submitted the MGDS/MPC Interface Issues Study Report to DOE for acceptance review. The study report discussed the strategy for incorporation of the MPC into the MGDS, identified interface issues, developed a set of key decision points for resolution of MGDS issues related to the MPC, and discussed constraints imposed on the MGDS by the MPC.
- Completed the 1995 Total System Life-Cycle Cost (TSLCC) MGDS final estimate. The updated MGDS cost estimate incorporated changes resulting from design and cost updates (waste package Title I cost estimate), modeling improvement (subsurface area), and responses to the Independent Cost Assessment team comments. The latest update resulted in a MGDS cost reduction of \$1,395M (FY94) compared with the TSLCC draft published in May 1995.

3.1.1.2 Issues and Concerns

- None.

APPENDIX A

3.1.2 Scientific Program Operations

MANAGER: C. T. Statton

OBJECTIVE(S): Provide a scientific basis for evaluating site suitability. Coordinate surface-based and ESF testing activities. Conduct site investigation activities to implement annual and long-range plans. Support suitability evaluations, license preparation, performance assessments, design, construction, and NEPA activities. Support International program activities that impact Yucca Mountain site characterization.

3.1.2.1 Progress During Report Period

- Continued planning for the first thermal test in the Exploratory Studies Facility (ESF). Provided test facility configuration requirements to the ESF Test Coordination Office to initiate formal preparation of the test planning package. Reported status of the development of in situ thermal testing strategy and the plans for the first ESF Thermal Test to YMSCO.
- Completed pump tests at the C-well complex to support characterization of the saturated zone.
- Performed gas sampling and air permeability studies in borehole USW UZ-7a and in Alcove #1 of the ESF.
- Supported development of the FY96 Project Implementation Plan for Site Investigations. Developed new worksopes, schedules, deliverable criteria, and bases of estimate for Phase II budget using a new strategy. Emphasis is on meeting regulatory requirements, carrying out critical path activities, synthesizing and integrating existing data, and, finally, collecting new data if sufficient budget is available.
- Completed preliminary sensitivity studies of diffusion showing that migration of solutes through fractures was greatly retarded relative to fluid velocities.
- Completed a report on technetium (Tc) chemistry. Tc is a highly soluble, non-sorbing radionuclide in oxidizing water, so it presents problems in performance assessment calculations. The report represents an excellent summary of the state of knowledge of Tc and indicates that, under reducing or near-neutral water conditions, Tc may form sorbing species.

3.1.2.2 Issues and Concerns

- None.

FY95 M&O MAJOR DELIVERABLE STATUS

WBS	MAJOR DELIVERABLE TITLE	DUE DATE	COMPLETE	BCR NUMBER¹	RESULT OF APPR
9.3.5	FINAL TSLCC REPORT TO RW-35	15-Sep-95	- -		
9.3.5	DRAFT FEE ADEQUACY REPORT	28-Jun-95	- -		
9.3.5	RECEIVE PCSB APPROVED WAST PROJECT COST & SCHEDULE BASELINE CHANGES	09-Feb-95	- -		
9.3.5	RECEIVE PBCCB-APPROVED YMP COST AND SCHEDULE BASELINE CHANGES	15-Sep-95	- -		
9.3.5	REVISED WBS RECOMMENDATION TO RW-35	10-Mar-95	07-Apr-95		

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3.1.2 Scientific Program Operations

MANAGER: C. T. Statton

OBJECTIVE(S): Provide a scientific basis for evaluating site suitability. Coordinate surface-based and ESF testing activities. Conduct site investigation activities to implement annual and long-range plans. Support suitability evaluations, license preparation, performance assessments, design, construction, and NEPA activities. Support International program activities that impact Yucca Mountain site characterization.

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- Completed pump tests at the C-well complex to support characterization of the saturated zone.
- Performed gas sampling and air permeability studies in borehole USW UZ-7a and in Alcove #1 of the ESF.
- Supported development of the FY96 Project Implementation Plan for Site Investigations. Developed new workscopes, schedules, deliverable criteria, and bases of estimate for Phase II budget using a new strategy. Emphasis is on meeting regulatory requirements, carrying out critical path activities, synthesizing and integrating existing data, and, finally, collecting new data if sufficient budget is available.
- Completed preliminary sensitivity studies of diffusion showing that migration of solutes through fractures was greatly retarded relative to fluid velocities.
- Completed a report on technetium (Tc) chemistry. Tc is a highly soluble, non-sorbing radionuclide in oxidizing water, so it presents problems in performance assessment calculations. The report represents an excellent summary of the state of knowledge of Tc and indicates that, under reducing or near-neutral water conditions, Tc may form sorbing species.

3.1.2.2 Issues and Concerns

- None.

FY95 M&O MAJOR DELIVERABLE STATUS

WBS	MAJOR DELIVERABLE TITLE	DUE DATE	COMPLETE	BCR NUMBER ¹	RESULT OF APPROVAL
9.2.2	TRAINING MATERIALS FOR OCRWM NEPA WORKSHOPS	29-Sep-95 ²	- -	SIN-95-008	CHANGE TO NON-CONFORMANCE AFTER PROMULGATION
9.3.2	FINAL PROGRAM PLAN	20-Dec-94	20-Dec-94		
9.3.5	FINAL DRAFT COST AND SCHEDULE ESTIMATING GUIDELINE	09-Dec-94	- -	PMA-94-004	TDL 95-5 EXTEND INTO FY96
9.3.4	PUBLISH REVISED, SELECTED PROGRAM-WIDE PUBLIC INFO. MATERIAL	29-Sep-95	- -		
9.3.4	DRAFT ANSWERS TO QUESTIONS	30-Jun-95	28-Jul-95		
9.3.3	NAGRA ANNUAL PROJECT PLAN	28-Feb-95	18-Apr-95	SPI-95-001	NEW DUE DATE - 01/18/95
9.3.4	DEPLOY FOR TESTING AN INTEGRATED DIGITIZED AUDIOVISUAL ELECTRONIC CAPABILITY	30-Jun-95	09-Jun-95		
9.3.3	SKB ANNUAL PROJECT PLAN	31-May-95	- -	SPI-95-001	NEW DUE DATE - 01/18/95
9.3.3	AECL ANNUAL PROJECT PLAN	28-Feb-95	18-May-95	SPI-95-001	NEW DUE DATE - 01/18/95
9.3.6	DRAFT FY96 WORK PLANS COMPLETED	21-Aug-95	- -		
9.3.6	FY96 SHORT RANGE PLAN DELIVERED	18-Aug-95	- -		
9.3.6	GENERAL USER APPLICATION DEVELOPED	29-Sep-95	- -		
9.3.5	DELIVERY DRAFT PCSD TO RW-35	30-Jun-95	- -		
9.3.5	DELIVER DRAFT PMSM TO RW-35	27-Feb-95	24-Feb-95		
9.3.5	DELIVER DRAFT OPSN TO RW-35	15-Feb-95	15-Feb-95		
9.3.5	DESCRIPTION OF PROGRAM ASSUMPTIONS TO RW-35	08-Nov-94	08-Nov-94		
9.3.5	INTERIM LIFE-CYCLE COST ESTIMATES TO RW-35	27-Jan-95	27-Mar-95		
9.3.5	FINAL PRELIMINARY DRAFT TSLCC REPORT TO RW-35	28-Apr-95	11-Apr-95		

² Planning Date

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3.1.3 Support Operations

MANAGER: D. K. Chandler

OBJECTIVE(S): Provide support to Information Management; Training; Institutional and External Affairs; and Environment, Safety, and Regional programs for the YMP. Support operations include developing computer-based information applications; processing YMP records; providing performance-based training classes; implementing environmental, radiological, and safety and health monitoring and compliance programs; conducting regional socioeconomic studies; and providing public outreach programs, media and communications support, information products, and intergovernmental interactions.

3.1.3.1 Progress During Report Period

Environment Safety and Regional Programs

- Received air quality permits from the Nevada Bureau of Air Quality for the Exploratory Studies Facility emergency generators and additional crushing and conveyor facilities in the gravel pit.
- Received general discharge permit approval from the Nevada Division of Environmental Protection for the Yucca Mountain Project north portal septic system.
- Accomplished the Phase IV Conveyor Belt Environment, Safety and Health (ES&H) Readiness Assessment to ensure that conveyor belt operations at the Exploratory Studies Facility are undertaken and conducted in accordance with ES&H regulatory requirements.
- Completed the final report of the ES&H audit of Sandia National Laboratory site characterization activities conducted in April 1995.
- Completed the summer trapping session to monitor small mammal populations and annual vegetation production measurements on ecological study plots to monitor vegetation growth. Both efforts support the terrestrial ecosystem site characterization effects study.
- Distributed the Socioeconomic Monitoring Program Procurement Data Report for the period from October 1994 through March 1995 to representatives of the State of Nevada and affected units of local government.

Information Management

- The M&O Records Management Council met in Denver on July 17-18, 1995. Highlights included the formation of a task team to examine standardization of indexing criteria by record type and the agreement by the remote sites to eliminate duplicate records management procedures in favor of one set throughout the program.

FY95 M&O MAJOR DELIVERABLE STATUS

WBS	MAJOR DELIVERABLE TITLE	DUE DATE	COMPLETE	BCR NUMBER ¹	RESULT OF APPR
3.2.2	DRAFT REPORT ON SFSX	29-Sep-95	- -		
3.2.4	TOPICAL REPORT, REV 1, ON PWR STORAGE/TRANSPORT BURNUP CREDIT	29-Sep-95	26-May-95		
3.2.4	FINAL OPERABILITY REPORT FOR LWT TRACTOR TESTING (60 DAYS AFTER TEST REPORT)	29-Sep-95	- -		
3.2.13	OCRWM TRANSPORTATION RISK MGT PROGRAM STRATEGIC PLAN FINAL DRAFT	31-Mar-95	31-Mar-95		
3.2.13	OCRWM RISK MGT STRATEGY IMPLEMENTATION PLAN FINAL	29-Sep-95	- -		
3.2.13	FINAL TSRA REPORT	30-Jun-95	- -		
3.2.14	DRAFT MATERIALS FOR 180 (c) ANOPR	20-Dec-94	10-Jan-95		
3.2.14	DRAFT MATERIALS FOR 180 (c) NOPR	30-Jun-95	30-May-95		
3.2.14	ROUTING CRITERIA DEVELOPMENT	29-Sep-95	- -		
3.3.1	PRELIMINARY PROPOSED POSITIONS - 1ST SET ISSUES	31-Jan-95	- -	WST-95-013	DELETE FROM WA
3.3.1	REGULATORY SUMMARY PLAN	16-Jan-95	- -	WST-95-013	DELETE FROM WA
3.3.1	DRAFT 1995 APR/ACR	29-Sep-95	- -		
3.3.1	FINAL VERIFICATION PLAN	31-Jul-95	25-Jul-95	WST-95-003	NEW DATE 7/95
3.3.1	WASTE ACCEPTANCE OPERATIONAL PLAN (WA-OP)	31-Mar-95	31-Mar-95		
3.3.3	PHASE I DATA ACQUISITION PLAN	15-Aug-95	- -	WST-95-005	NEW TITLE & DAT
3.3.1	FINAL MANAGEMENT PLAN - WASTE ACCEPTANCE CRITERIA	06-15-95	28-Jun-95	WST-95-007	NEW DATE (6/30/95)
9.2.1	CIS PHASE 3 OPERATIONAL	16-Feb-96	- -	SIN-95-007	NEW DATE (2/16/96)
9.2.2	FINAL NEPA PROCEDURES MANUAL	30-Apr-95	21-Apr-95	SIN-95-001	NEW DATE (4/95)

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- Developed a Backlog Processing Plan to support a second shift to reduce the records backlog in the Record Processing Center (RPC).
- The On-site NRC representative visited the RPC to pursue retrieval concerns. Lead pages to 13 documents were queried; 12 were retrieved without delay. After research, the 13th was determined not to have been submitted. The success rate for the NRC retrieval was 100%.

Institutional and External Affairs

- Provided 9 public speaking presentations, including 2 educational and 7 general YMP overview presentations, for a total attendance of 568 people.
- Coordinated and conducted 10 tours to Yucca Mountain for a total of 89 guests. A Public Open House tour was also conducted for 97 guests. Of special interest were a media tour for guests from KNPR Public Radio and a tour for members of the Spanish Parliament.
- Coordinated and conducted four fifth-grade field trip workshops at the Las Vegas Yucca Mountain Science Center (YMSC), including workshops on energy, geology, and environmental studies. A total of 250 students participated in the workshops and toured the YMSC.
- Coordinated and conducted a Discovery Day at the Las Vegas YMSC on July 29, 1995. Approximately 225 people participated in the hands-on science activities, learning about volcanoes, erosion, fossils, and geology.
- Completed development of a 13-minute video titled "Why Study Yucca Mountain? To Solve an Environmental Problem." The video answers numerous questions, including how scientists are studying Yucca Mountain and what is being done to protect the environment and public safety. The video will be shown at the Las Vegas YMSC to support the speakers bureau, tours, and other outreach programs.
- Attended Transportation Public Update Meetings, in Austin, Nevada, on July 25, 1995, and in Battle Mountain, Nevada, on July 26, 1995. The update meetings were requested and hosted by Lander County. Approximately 50 people attended the meetings. The YMP exhibits were set up and staffed at these meetings. The staff also completed display productions of transportation and new work and created three new biographies for distribution for the meetings.

Training

FY95 M&O MAJOR DELIVERABLE STATUS

WBS	MAJOR DELIVERABLE TITLE	DUE DATE	COMPLETE	BCR NUMBER ¹	RESULT OF APPROVED BCR
3.1.9	FY 1997 IRB PACKAGE PROJECT	20-Apr-95	- -	MPC-95-015	DELETE FROM WAD
3.1.9	ANNUAL WORK PLAN	29-Sep-95	- -		
3.1.7	INTEGRATED MPC MASTER SCHEDULE (DRAFT)	20-Dec-94	19-Dec-94		
3.1.7	V&V REPORT ON ORIGEN-S AND ANSYS COMPUTER CODE	28-Feb-95	21-Feb-95		
3.1.7	MRS/NO-MRS EVALUATION REPORT	1-Jun-95	20-Jul-95	WST-95-003	NEW DUE DATE -06/01/95
3.1.7	PD REV.1 MPC DRD	29-Sep-95	- -	MPC-95-012	NEW DATE - (9/95)
3.1.7	QUALIFICATION REPORT ON SCALE COMPUTER CODE	30-Jun-95	- -	MPC-95-008	NEW TITLE & DATE - (6/95)
3.1.7	SSA DECISION	06-Feb-95	24-May-95		
3.1.13	SUBMIT MPC RCP TO PBCCB	20-Mar-95	- -	MRS-95-002	DELETE FROM WAD
3.1.5	FINALIZED BURNUP CREDIT TOPICAL REPORT	31-May-95	26-May-95		
3.1.5	MPC CRITICALITY CONTROL DECISION REPORT	29-Sep-95	- -		
3.1.1	DEFERRED - PRELIMINARY DRAFT OF WAST PROJECT T&EMP	29-Sep-95	- -		
3.2.14	TRANSPORTATION COORDINATION GROUP (TCG) MTG MINUTES	20-Jun-95	29-Jun-95		
3.2.14	TRANSPORTATION EXTERNAL COORDINATION WORKING GROUP MINUTES	30-Jan-95	16-Feb-95		
3.2.14	TRANSPORTATION EXTERNAL COORDINATION WORKING GROUP (TEC/WG) MTG	20-Jul-95	- -		
3.2.1	FINAL RTDA REPORT	30-Jun-95	- -		
3.2.2	COMPLETE TRACTOR/TRAILER TESTING	20-Jun-95	26-Jun-95		
3.2.2	TRACTOR/TRAILER TEST REPORT	20-Jun-95	29-Jun-95		
3.2.2	COMMENTS ON GA ANSWERS TO 1ST ROUND NRC QUEST ON GA-4/9 SARs	31-Aug-95	28-Jul-95	TRN-95-011	NEW DATE (8/95)

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3.1.3.2 Issues and Concerns

- None.

FY95 M&O MAJOR DELIVERABLE STATUS

WBS	MAJOR DELIVERABLE TITLE	DUE DATE	COMPLETE	BCR NUMBER ¹	RESULT OF APPROVED BCR
1.2.14	DEVELOP & DISTRIBUTE SPECIALTY ANNOUNCEMENT "B"	04-Apr-95	19-Jan-95		
1.2.14	DEVELOP & DISTRIBUTE SPECIALTY ANNOUNCEMENT "A"	05-Dec-94	18-Jan-95		
1.2.14	SUBMIT BULLETIN ARTICLE "A"	03-Jan-95	27-Jan-95		
1.2.14	SUBMIT BULLETIN ARTICLE "B"	27-Mar-95	14-Mar-95		
1.2.14	SUBMIT BULLETIN ARTICLE "C"	03-Jul-95	17-Jul-95		
1.2.14	SUBMIT BULLETIN ARTICLE "D"	25-Sep-95	- -		
1.2.14	COUNTY REP REPORTS (MONTHLY)	30-Sep-95	14-Jun-95		
1.2.14	YEAR-END VIDEO	23-Dec-94	11-Jan-95		
1.2.14	NEW WORK UPDATE VIDEO	30-Jun-95	30-May-95		
1.2.14	NEW WORK UPDATE VIDEOS (FOUR)	30-Sep-95	31-May-95	YMP-95-008	DELIVER 4 VIDEOS INSTEAD OF 7
3.1.1	M&O MPC ACCEPTANCE PLAN	31-Mar-95	31-Mar-95		
3.1.1	PRELIMINARY DRAFT OF REV. 2 WAST PROJECT SEMP	31-Aug-95	- -		
3.1.1	FINAL (POBCCB) DRAFT OF WAST LCCP PLAN	29-Sep-95	- -		
3.1.1	WAST PROJECT TRACEABILITY DATABASE TOOL	29-Sep-95	- -		
3.1.1	PRELIMINARY DRAFT OF WAST PROJECT LCC REPORT	29-Sep-95	- -		
3.1.1	PRELIMINARY DRAFT REV OF WAST PROJECT CMP AND ATTACHMENTS	31-May-95	23-May-95		
3.1.7	MPC SYSTEM TECHNICAL/BUSINESS PROPOSALS DUE	24-Oct-94	10-Nov-94		
3.1.7	AWARD MPC (PHASE 1) SAR DESIGN SUBCONTRACTS	05-Apr-95	26-Apr-95	MPC-95-004	DELETE FROM WAD
3.1.9	ESAR #2 PRESENTATION PACKAGE	17-Feb-95	01-Mar-95		

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3.1.4 Site Construction and Operations

MANAGER: R. M. Sandifer

OBJECTIVE(S): Provide integrated Field Construction and Operations Services in support of the Yucca Mountain Site Characterization Office (YMSCO). Provide the strategic planning and technical integration of all field activities to ensure the execution of project priorities.

3.1.4.1 Progress During Report Period

Construction

- The TBM advanced 36.1 meters (m) to station 11+74. The tunnel excavation is approximately 5 weeks ahead of schedule. Daily TBM advance rates averaged 1.81 m per day for the month; progress during the best week averaged 5.24 m per day. Tunneling production has been inhibited due to poor ground, maintenance activities, machine modifications, and conveyor installation. Ground conditions alternated from Category 1 (Rock Bolts) to Category 4 (Steel Sets) in the tunnel. Currently, the ground condition requires the contractor to use Ground Support Category 4 (Steel Sets). Installed ten steel sets this period with 561 installed to date.
- Continued construction of alcove #2 during the conveyor installation and TBM modifications achieving Level III Project Milestone OR65M007. Alcove #2 advanced to station 00+48.0 m (157.44 ft) and is 100% complete.
- Continued surface construction with progress being made on the Switchgear and the Change House building, the access road for the surface conveyor, and the Booster Pump Station. Completed the water tank installation and set the valve vaults. The overall surface construction gained a week during the reporting period and is now approximately 10 weeks behind.

Drilling

- Coring and reaming operations at USW SD-12 borehole reached 1770.59 feet and 1710.50 feet, respectively. Progress for the month was 335.31 feet cored and 309.53 feet reamed.
- Operations at USW SD-7 borehole were successful in setting a 7-inch outside diameter flush joint casing with a casing shoe into the formation at 1,575 feet to protect the boreholes unsaturated zone. Coring operations reached 1,631.99 feet in the borehole on July 27, 1995. The top of the water level in the borehole was measured at 1,579.64 feet. Drilling operations

FY95 M&O MAJOR DELIVERABLE STATUS

WBS	MAJOR DELIVERABLE TITLE	DUE DATE	COMPLETE	BCR NUMBER'	RESULT OF APPROVED BCR
1.2.5	MGDS LA AO REV 5 TO YMSCO	28-Sep-95	- -		
1.2.5	SITE CHARACTERIZATION FEEDBACK REPORT LA/AO REV 4	28-Apr-95	28-Apr-95		
1.2.5	PR11 TO DOE	23-Dec-94	23-Dec-94		
1.2.5	PR12 TO DOE	26-Jun-95	23-Jun-95		
1.2.5	ISSUE LA ANNOTATED OUTLINE REVISION 4 TO YMSCO	24-Mar-95	24-Mar-95		
1.2.5	RESPONSE TO SCA QUESTION # 80	31-Mar-95	20-Sep-94		
1.2.5	SEISMIC TOPICAL REPORT II TO DOE	31-Mar-95	- -		
1.2.5	TECHNICAL DATA CATALOG	19-Oct-94	20-Oct-94		
1.2.5	TECHNICAL DATA CATALOG SUPPLEMENT	19-Jan-95	24-Jan-95		
1.2.5	TECHNICAL DATA CATALOG SUPPLEMENT	20-Apr-95	20-Apr-95		
1.2.5	TECHNICAL DATA CATALOG SUPPLEMENT	20-Jul-95	17-Jul-95		
1.2.5	DOCUMENT TSPA 1995 CONCLUSIONS & IMPLICATIONS	30-Aug-95	- -		
1.2.5	ANLYS FAR-FIELD THERMOHYDROLOGIC RESPONSE	30-Aug-95	12-Apr-95		
1.2.6	RELEASE DESIGN PACKAGE 1D	27-Jan-95	03-Feb-95		
1.2.6	DESIGN PACKAGE 1E ACCEPTANCE	14-Jul-95	14-Jun-95		
1.2.6	ISSUE CONVEYOR FOUNDATION FOR BASELINING	21-Mar-95	21-Mar-95		
1.2.6	RELEASE DESIGN PACKAGE 2C	11-Oct-94	09-Jan-95		
1.2.6	START 8A 50% DESIGN REVIEW	03-Mar-95	- -		
1.2.6	ICDS DESIGN PACKAGE ISSUE	21-Dec-94	28-Feb-95		
1.2.13	EIS NOTICE OF INTENT (DRAFT)	15-Dec-94	04-Jan-95		
1.2.13	ANNUAL SITE ENVIRONMENTAL REPORT	02-May-95	05-May-95		

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- Supported coring, drilling, and cementing operations at the Fran Ridge Large Block. A total of 37 holes have been completed; 2 holes remain.
- Performed geophysical logging on boreholes USW SD-7, USW WT-12, and UE-25c #3.
- Completed transition of T&MSS Drilling Support and Sample Management Work Instructions (WI) to M&O Nevada Work Instructions (NWI) procedures effective July 17, 1995.
- Issued the work program and summary cost estimate for UE-25 UZ#16 Vertical Seismic Profiling (YMP/WP/95-03) and USW WT-10 Workover/Pump Test (YMP/WP/95-11).

Operations

- DOE/NTSO agreed that the 12.47 kV line underbuild from Substation 25-15 to the ESF pad does not require DOE/NTSO involvement. The NTS Power Operations group is developing a budget and schedule to accomplish this work and will handle it on an urgent basis. The timely completion of this work and the delivery of the used transformer will provide a solution to the potential transformer failure problem at Substation 25-16.
- A review of transformer oil analysis data indicated that there is not a critical problem with the 10 MVA transformer at Substation 25-16. It has suffered some deterioration from heating but is not in imminent danger of failing. The transformer will be closely monitored and replaced when the transformer from the Salt River Project arrives. The purchase of the Salt River Project 10 MVA transformer is proceeding. The design drawings, manuals, and outlines for the transformer have been delivered, and the unit will be picked up next week and delivered to the site.
- Planned the Calico Hills shaft and Ghost Dance development drive. Provided DOE and Assistant Manager of Engineering and Field Operations (AMEFO) with an overview of the Calico Hills shaft and Ghost Dance development drive process along with preliminary findings and recommendations. M&O Senior Management gave approval to proceed at risk with the program to maintain anticipated scheduling requirements.
- Providing technical and management assistance to the Construction Management Organization (CMO)/Kiewit conveyor readiness review and DOE's Assistant Manager for Environmental, Safety, and Health (AMESH) and AMEFO readiness review assessment process. Coordinating sign-off activities for Phase IV TBM start-up.

FY95 M&O MAJOR DELIVERABLE STATUS

WBS	MAJOR DELIVERABLE TITLE	DUE DATE	COMPLETE	BCR NUMBER ¹	RESULT OF APPROVED BCR
1.2.2	TDPP FOR REPOSITOTY BURNUP CREDIT TOPICAL RPT	21-Dec-94	16-Dec-94		
1.2.2	ISSUE COST ESTIMATE STATUS REPORT	14-Mar-95	14-Mar-95		
1.2.3	DRAFT FINAL FISCAL YEAR 1995 TIP FOR WBS 1.2.3	30-Nov-94	30-Nov-94		
1.2.3	DRAFT FINAL FY 1996 TIP FOR WBS 1.2.3	28-Sep-95	- -		
1.2.3	UPDATED STRATIGRAPHIC COMPENDIUM	29-Sep-95	- -		
1.2.4	REP TECH IMP PLAN	13-Jan-95	09-Jan-95		
1.2.4	REPOSITORY TIP	13-Jan-95	09-Jan-95		
1.2.4	REP ENG PLAN	15-Dec-94	15-Dec-94		
1.2.4	ENGINEERING PLAN	15-Dec-94	15-Dec-94		
1.2.4	WASTE TREATMENT BLDG DESIGN FINAL REPORT	29-Sep-95	28-Apr-95		
1.2.4	WASTE HANDLING BLDG FINAL DESIGN REPORT	30-Aug-95	- -		
1.2.4	EMPLACEMENT EQUIP DEV REPORT	31-Jul-95	- -		
1.2.4	HEATING/COOLING REPORT	07-Apr-95	05-Apr-95		
1.2.4	EMPLACEMENT MODE EVAL	29-Jun-95	26-Jun-95		
1.2.4	RECOMMENDED LAYOUT CONCEPTS REPORT	30-Jul-95	28-Jul-95		
1.2.5	QUARTERLY REGULATORY INTERACTION SUMMARY REPORT	13-Jan-95	13-Jan-95		
1.2.5	QUARTERLY REGULATORY INTERACTION SUMMARY REPORT	14-Apr-95	13-Apr-95		
1.2.5	QUARTERLY REGULATORY INTERACTION SUMMARY REPORT	14-Jul-95	12-Jul-95		
1.2.5	QUARTERLY REGULATORY INTERACTION SUMMARY REPORT	13-Oct-94	14-Oct-94		
1.2.5	COMMENT PKG NRC PROPOSED RULE ON DESIGN BASIS EVEN	31-Mar-95	23-May-95		

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3.1.5 Suitability and Licensing Operations

MANAGER: J. L. Younker

OBJECTIVE(S): Assure site related compliance with Nuclear Regulatory Commission (NRC) agreements, requirements, and policies. Evaluate the performance of the natural, engineered barrier, and total system for meeting regulatory standards. Manage, compile, and maintain technical data and information developed for project related activities. Develop, review and validate levels of confidence for data and information to be used in Technical Site Suitability (TSS) and LA documentation. Provide evaluations of the potential impacts to waste isolation, and integrity of all in-situ disturbing activities conducted at the site.

3.1.5.1 Progress During Report Period

- Progress Report #12 was submitted to the DOE Headquarters Concurrence process on schedule on June 26, 1995.
- Transmitted the Quarterly Interactions Summary Report (PACS deliverable TM523) to the DOE. This report summarizes NRC, Advisory Committee on Nuclear Waste (ACNW), and Nuclear Waste Technical Review Board (NWTRB) interactions for the period April through June 1995 and provides observations and recommendations to the DOE.
- Transmitted the Quarterly Site Characterization Analysis (SCA) Open Item and Commitment Status Report (PACS deliverable TM581) to the DOE. This report provides a summary of progress toward resolving Site Characterization Analysis open items and summarizes outstanding commitments to the NRC.
- The third quarter FY95 Technical Data Catalog and the GIS Data Catalog were delivered to the DOE Technical Data Manager on schedule.

3.1.5.2 Issues and Concerns

- None.

FY95 M&O MAJOR DELIVERABLE STATUS

WBS	MAJOR DELIVERABLE TITLE	DUE DATE	COMPLETE	BCR NUMBER ¹	RESULT OF APPR
1.2.1	REVIEW DRAFT REVISION TO THE CDA	28-Feb-95	14-Mar-95		
1.2.1	REVIEW DRAFT REVISION TO THE CDA	25-Aug-95	- -		
1.2.1	QAP 6.2 REV DRAFT REV TO THE RDRD	28-Sep-95	- -		
1.2.1	QAP 6.2 REV DRAFT REV TO THE EBRD	31-Mar-95	24-Apr-95		
1.2.1	QAP 6.2 REV DRAFT REV TO THE SD&TRD	30-Mar-95	28-Apr-95		
1.2.1	CONCEPT OF OPERATION REPORT	28-Feb-95	08-Mar-95		
1.2.1	NV REPOS PRELIM TRANSPOR STRATEGY I	26-Jan-95	17-Feb-95		
1.2.1	NV REPOS PREL TRANSP STRATEGY II	31-Aug-95	- -		
1.2.1	CALICO HILLS DATA NEEDS AND ACCESS STUDY	31-May-95	31-May-95		
1.2.1	FY95 THERMAL LOADING STUDY	28-Sep-95	- -		
1.2.1	MPC SYSTEMS STUDY	31-Jan-95	13-Jul-95		
1.2.1	VALUE ENGINEERING STUDY REPORT #3	28-Apr-95	10-May-95		
1.2.1	VALUE ENGINEERING STUDY REPORT #4	30-Jun-95	- -		
1.2.1	VALUE ENGINEERING STUDY AND REPORT #5	31-Jul-95	- -		
1.2.1	VALUE ENGINEERING STUDY & REPORT #6	28-Sep-95	- -		
1.2.2	WASTE PACKAGE CONCEPTUAL DESIGN RPT	29-Sep-95	- -		
1.2.2	RPT ON PREL SEL WASTE PACTK MATERIALS	14-Jun-95	13-Jun-95		
1.2.2	INPUT TO CDA DOC	12-May-95	11-May-95		
1.2.2	ISSUE ACD MPC CONTAINER RISK ANALYSIS REPORT	14-Apr-95	14-Apr-95		
1.2.2	ACD UCF RISK ANALYSIS REPORT	14-Apr-95	14-Apr-95		
1.2.2	INITIAL DRAFT OF REPOS BURNUP CREDIT	15-Sep-95	- -		

¹ BCR - Baseline Change Request

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3.1.6 Business Management

MANAGER: D. B. Abel

OBJECTIVE(S): Provide overall Project Management, Project Control, Scheduling, and Administration and Facilities for the M&O.

3.1.6.1 Progress During Report Period

- Prepared for and participated in the Manager's Project Review (MPR). Briefed project status to the DOE PM, AM's and staff.
- Completed move of 60 people to the Dawson facility and integration of Kiewit and Reynolds Electrical and Engineering Company, Inc. (REECo) personnel.
- Completed integration of the REECo and M&O Mail Services, including facility modifications to accommodate both mail rooms. Received space at the Field Operations Center (FOC) to accommodate mail support to the site.

3.1.6.2 Issues and Concerns

- None.

App (x) A

3.1.7 Program Management Organization

MANAGER: M. A. Lugo

OBJECTIVE(S): The Project Management Organization (PMO) provides management support to the YMSCO, including the Project Manager (PM), Deputy PM and all of the Assistant Managers. The PMO assist the Project in the preparation of the annual planning guidance, review of the M&O's annual plan and evaluates the progress of the M&O and other Project participants. Using the Planning And Control System (PACS) reports and data, the PMO provided financial and schedule analyses and recommendations. The PMO facilitates and assist in the preparation of the Deputy's Project Review (DPR) materials. The PMO assist the YMSCO in the preparation and review of plans, including the Yucca Mountain portion of the OCWRM Management Plan.

3.1.7.1 Progress During Report Period

- Assisted the YMSCO in the preparation of the Licensing Support System (LSS) Make/Buy Team Charter and Commissioning letter. The make option has been defined as an in-house integrator while buy is defined as purchase from a single commercial integrator or supplier. This analysis is the next critical LSS action. Since the task will begin early, it is expected that the acquisition will continue to precede on or ahead of schedule.
- Collected and coordinated the Technical Working Group (TWG) comments to develop the set of Phase 2 LSS requirements that the TWG is recommending that the Advisory Review Panel approve.
- Preparing the final version of the Phase 2 LSS requirements incorporating the Panel members' comments and coordinating the review by the Technical Work Group, and a draft recommendation to the Licensing Support System Advisory Review Panel (LSSARP) relative to the number and location of access sites for the LSS.
- Completed the final review of the DOE/NRC Memorandum of Understanding (MOU). This MOU allocates specific Licensing Support System (LSS) responsibilities to each party. Final management review and approval can now begin.
- Compiling information for a summary map of all seismic reflection surveys conducted in the site area in the past three years and proposed for the future. These data will be used in presentations to the NRC and the ACNW.

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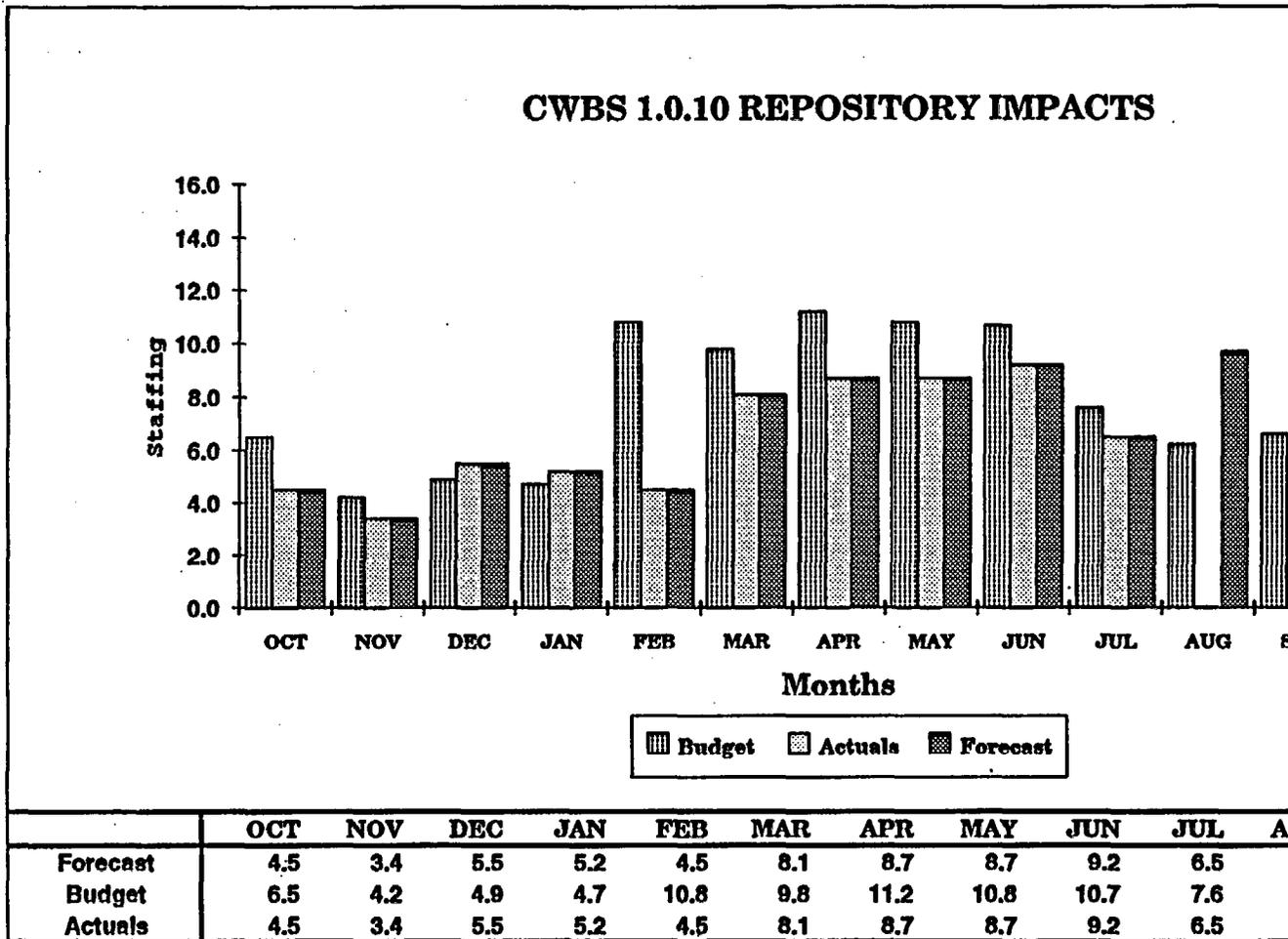
3.1.7.2 Issues and Concerns

- None.

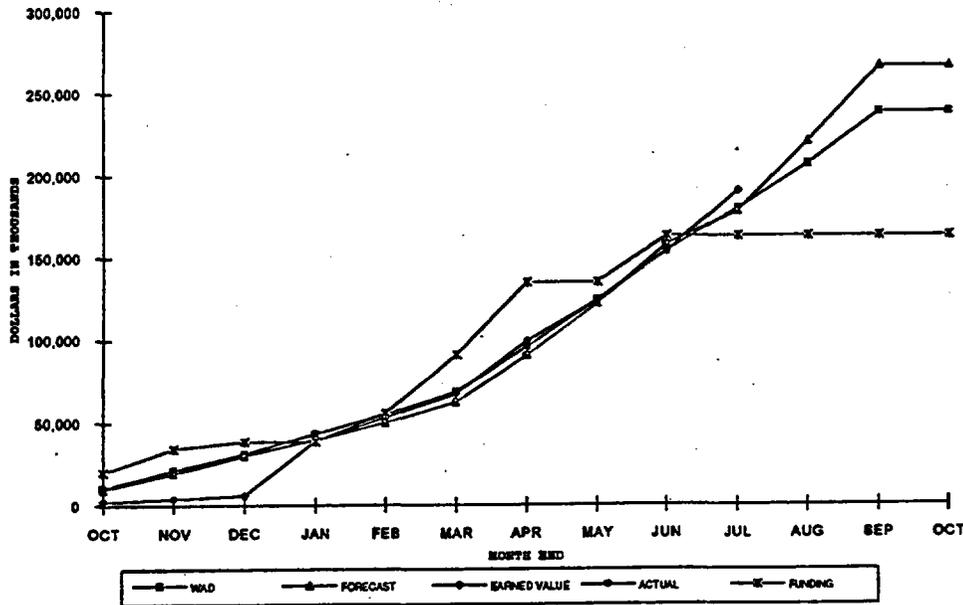
3.1.7.3 Variances

- All variances are within tolerance.

Figure 23. Repository Impacts Staffing



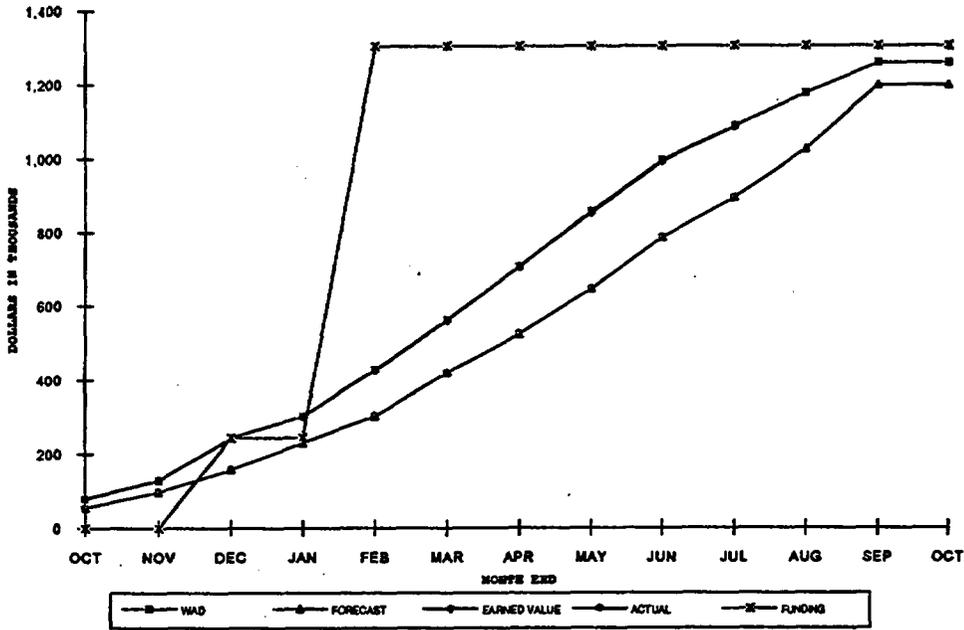
**CWBS 1.2 YUCCA MOUNTAIN SITE-CHARACTERIZATION PROJECT
(YMP)**



		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
MONTH	WAD	10,564	10,589	9,798	12,158	11,406	13,273	27,381	28,690	29,351	25,436	27,069	31,377	0
	FORECAST	9,472	9,763	10,859	9,409	10,240	12,281	28,195	31,310	35,791	20,031	42,253	45,470	2
	EARNED VALUE	2,117	1,839	1,976	32,835	13,922	14,100	31,842	24,985	29,654	36,502			
	MONTH ACTUAL	9,472	9,763	10,859	9,409	10,240	12,281	28,195	31,310	35,791	20,031			
	VAR/SCH	(8,447)	(8,750)	(7,822)	20,677	2,426	827	4,461	(3,705)	303	11,066			
	VAR/COST	(7,355)	(7,924)	(8,883)	23,426	3,682	1,819	3,647	(6,325)	(8,137)	16,471			
CUM	WAD	10,564	21,153	30,951	43,109	54,805	67,878	95,259	123,949	153,300	178,736	205,805	237,182	237,182
	FORECAST	9,472	19,235	29,894	39,303	49,543	61,824	90,019	121,329	157,120	177,151	219,404	264,874	264,876
	EARNED VALUE	2,117	3,956	5,932	38,767	52,689	66,789	98,631	123,616	153,270	189,772			
	ACTUAL	9,472	19,235	29,894	39,303	49,543	61,824	90,019	121,329	157,120	177,151			
	VAR/SCH	(8,447)	(17,197)	(25,019)	(4,342)	(1,916)	(1,089)	3,372	(333)	(30)	11,036			
	VAR/COST	(7,355)	(15,279)	(23,962)	(536)	3,146	4,965	8,612	2,287	(3,850)	12,621			
FUNDING	FY95 FUNDING	20,000	34,055	34,055	34,055	80,816	86,185	130,289	130,289	157,716	157,716	157,716	157,716	157,716
	PREV. FUNDED	0	0	4,360	4,360	4,360	4,360	4,360	4,360	4,360	4,360	4,360	4,360	4,360
	TOTAL FUNDING	20,000	34,055	38,415	38,415	85,176	90,525	134,649	134,649	162,076	162,076	162,076	162,076	162,076

Figure 1. Yucca Mountain Financial Status

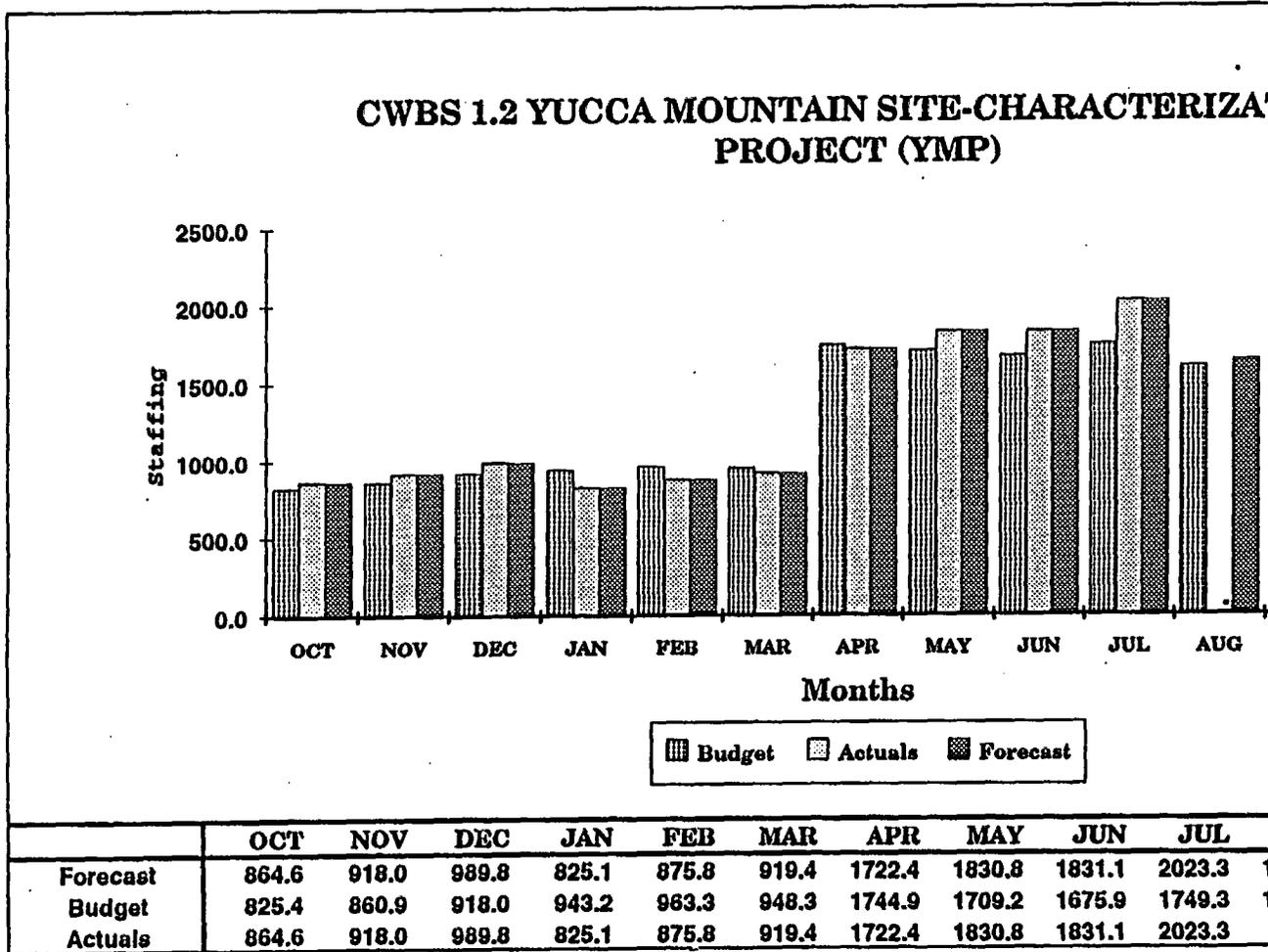
CWBS 1.0.10 REPOSITORY IMPACTS



		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
MONTH	WAD	79	50	114	58	127	134	144	150	138	91	90	82	0
	FORECAST	55	43	60	72	71	118	104	122	140	108	131	173	0
	EARNED VALUE	80	50	112	58	128	134	148	144	138	94			
	MONTH ACTUAL	55	43	60	72	71	118	104	122	140	108			
	VAR/SCH	1	0	(2)	0	(1)	0	4	(8)	0	3			
	VAR/COST	25	7	52	(14)	55	16	44	22	(2)	(14)			
CUM	WAD	79	129	243	301	428	562	706	856	994	1,085	1,175	1,257	1,257
	FORECAST	55	98	158	230	301	419	523	645	785	893	1,024	1,197	1,197
	EARNED VALUE	80	130	242	300	428	560	708	852	990	1,084			
	ACTUAL	55	98	158	230	301	419	523	645	785	893			
	VAR/SCH	1	1	(1)	(1)	(2)	(2)	2	(4)	(4)	(1)			
	VAR/COST	25	32	84	70	125	141	185	207	205	197			
FUNDING	FY95 FUNDING	0	0	0	0	1,080	1,080	1,080	1,080	1,080	1,080	1,080	1,080	1,080
	PREV. FUNDED	0	0	243	243	243	243	243	243	243	243	243	243	243
	TOTAL FUNDING	0	0	243	243	1,303	1,303	1,303	1,303	1,303	1,303	1,303	1,303	1,303

Figure 22. Repository Impacts Financial Status

Figure 2. Yucca Mountain Staffing



4.4 REPOSITORY IMPACTS CWBS 1.0.10

MANAGER: S. S. Sareen

OBJECTIVE(S): In support of a Programmatic Environmental Impact Statement (PEIS) and a DOE Record of Decision (ROD), determine the potential impact of disposing spent fuel from plutonium-burning reactors and/or plutonium immobilized with high-level radioactive waste (HLW) on the existing HLW Geologic Program. Assess the regulatory and statutory impacts, develop design basis for a repository, and initiate efforts towards a repository design.

4.4.1 Progress During Report Period

PEIS

- Provide several versions of the existing MOX Reactors PEIS input data to Tetra Tech. The input will be reviewed by RW and MD prior to incorporation into the PEIS
- Provide another version of the Greenfield Glass PEIS input data to Tetra Tech. Additional criticality calculations have shown that 3 percent Pu glass has a K_{eff} below 0.95 when all neutron absorbers are removed.
- Completed preliminary partially completed reactor data. The data is sufficient for conducting a quick analysis for the Reactor Alternative Team, but not sufficient for the PEIS input.
- The adjunct Metler Option (Borosilicate Glass) has been determined to be comparable to the Greenfield case. This option requires no further analysis for repository impacts.
- The Reactor Alternative Team initiated review of data input to the Technical Summary documents for the Existing MOX and Evolutionary MOX cases.

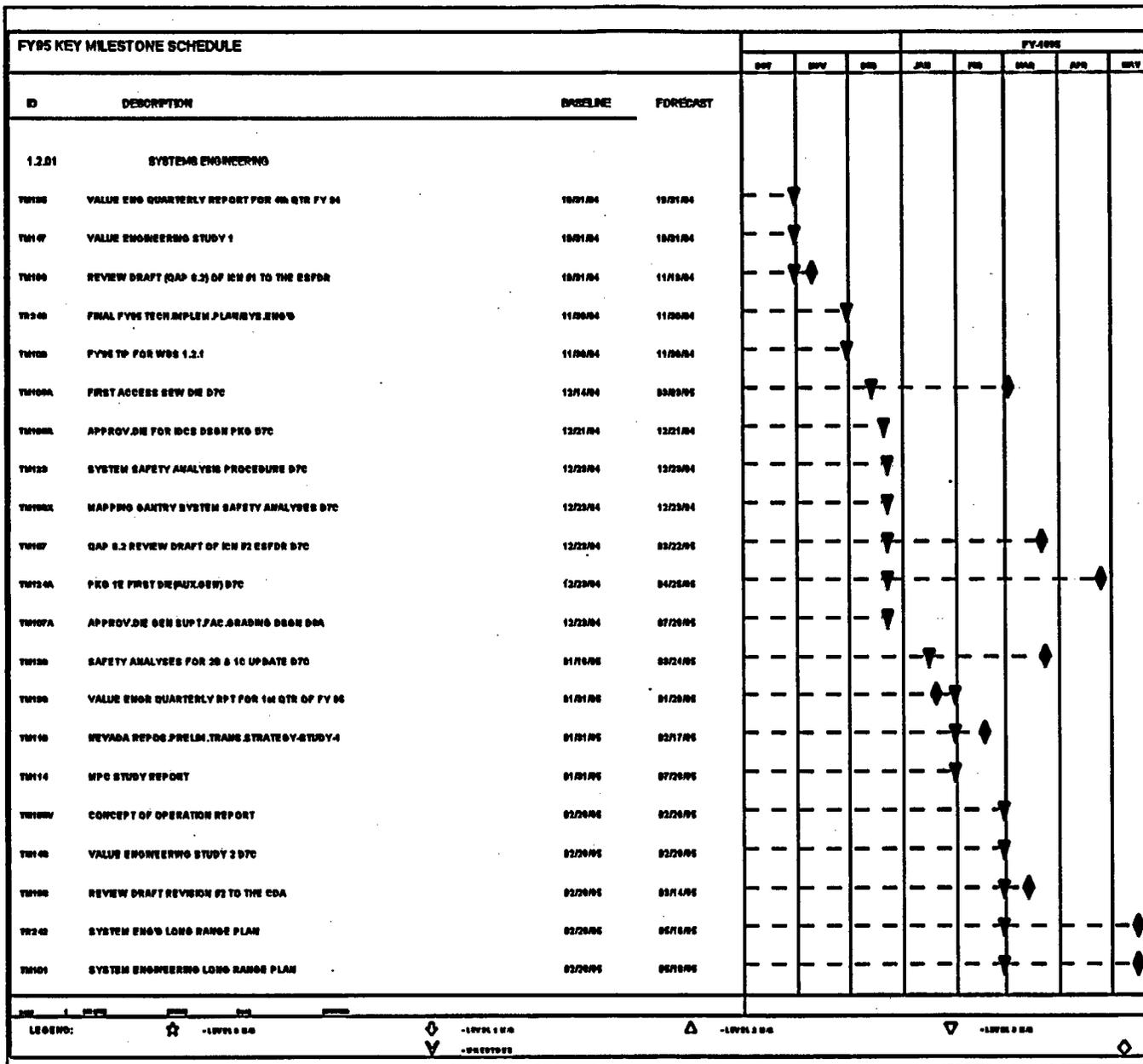
4.4.2 Issues and Concerns

- Late data availability for both the Reactor and Immobilization alternatives continues to cause problems in meeting the repository PEIS and Technical Summary input schedules.

4.4.3 Variances

- The cumulative cost variance of \$191K/18% is due to delayed data for several options being analyzed for the Repository Impacts task. Based on the current schedule for the PEIS development, only the Existing Reactor, Greenfield Glass, and Greenfield Ceramic options will be analyzed for repository impacts. The M&O and the PEIS contractor are working closely to establish dates for submission of the analyses.

Figure 3. Yucca Mountain Key Milestone Schedule



4.4 Repository Impacts

Figure 3. Yucca Mountain Key Milestone Schedule (Continued)

FY95 KEY MILESTONE SCHEDULE				FY-1995							
ID	DESCRIPTION	BASELINE	FORECAST	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
TM112	CALICO HILLS DATA NEEDS ACCESS STUDY PEP D77	02/20/95	05/01/95						▲		
TM100W	STATUS REPORT OF THE REV OF THE SCPB	02/20/95	04/20/95						▲		
TM108	HFE DESIGN MAIN DRAFT UPDATE	02/20/95	03/20/95						▲		
TM140	MAIN DRAFT EXTERNALLY REV DR	03/02/95	07/20/95						▲		
TM100A	PROCUREMENT EVAL.-MUCK CONVEYOR FOUND.SPEC.D7C	03/22/95	03/10/95						◆		
TM102	DRAFT FY96 TP FOR 1.2.1.1	03/20/95	04/07/95							◆	
TM1000	QAP 8.2 REV DRAFT REV.TO EBRDR ACD DBA	03/01/95	04/20/95							▲	◆
TM100J	QAP 8.2 REV.DRAFT D7C	03/01/95	04/20/95							▲	◆
TM102	DR% FOR PKG 1E 90% DSH REVIEW D7C	04/03/95	04/20/95							▲	◆
TM100A	REVIEW DRAFT REVISION TO THE CDA	06/20/95	06/20/95								
TM111	NEVADA REPOS PRELIM TRANSP STRATEGY STUDY 1	06/01/95	06/20/95								
TM424A	WASTE TREATMENT BLDG DSH FINAL RPT.	08/20/95	08/20/95								
TM110	FY95 THERMAL LOADING STUDY	09/20/95	09/20/95								
TM100P	QAP 2.6 REV.DRAFT OF REVISION OF SCPB	09/20/95	09/20/95								
TM1000	QAP 8.2 REV.DRAFT REV.TO RDRD	09/20/95	09/20/95								
TM170	ESP CONCEPT OF OPERATION REPORT	09/20/95	12/21/95								
1.2.02	WASTE PACKAGE										
TM240	DRAFT FY96 TP FOR 1.2.2	03/20/95	03/20/95							▲	
TM210	DEVELOPMENT & DMP CONT SECT OF WP CD RPT. PEP DBA	04/14/95	04/14/95								▲
TM230	DEVELOPMENT CONTAINER OF WP CDR DBA	06/15/95	05/22/95								▲
TM214	RPT.ON PRELIM SELEC OF WP MATLS	06/15/95	06/13/95								
TM221	DEVELOPMENT CONTAINER FOR WP CDR DBA	06/01/95	06/01/95								

LEGEND: ☆ - LEVEL 1 DB ◊ - LEVEL 2 DB ▲ - LEVEL 3 DB ▼ - LEVEL 4 DB

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Figure 3. Yucca Mountain Key Milestone Schedule (Continued)

FY95 KEY MILESTONE SCHEDULE				FY-1996											
ID	DESCRIPTION	DEADLINE	FORECAST	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
TW000	WASTE PACKAGE SECTION OF DESIGN SUMMARY REPORT	09/20/95	09/20/95												
TW007	FINAL FY95 TP FOR 1.2.3	09/20/95	09/20/95												
1.2.03	SITE INVESTIGATIONS														
TW006	FY 95 TECH IMPL PLAN FOR SITE INVEST 1.2.3 D70	11/08/94	11/08/94												
TW002	UPDATE LONG-RANGE PLAN FOR SITE INVEST 1.2.3 D70	04/09/95	04/09/95												
TW000	FINAL FY 95 TECH IMPLEMENT PLAN FOR 1.2.3 D70	04/20/95	04/20/95												
TW075	UPDATED STRATEGIC COMPENDIUM	04/20/95	04/20/95												
1.2.04	REPOSITORY														
TW400	REPOSITORY ENGINEERING PLAN D0A	12/16/94	12/16/94												
TW407	COST ESTIMATE STATUS REPORT D0A	12/16/94	12/16/94												
TW410	REPOSITORY TP	01/18/95	01/18/95												
TW07A	DEVELOP DATA NEEDS STATUS RPT. D0A	01/18/95	01/18/95												
TW00A	EMPLACEMENT EQUIPMENT DEVEL STATUS REPORT D0A	02/28/95	02/28/95												
TW06	REPOSITORY HORIZON SELECTION REPORT D0A	03/17/95	04/28/95												
TW00	WASTE EMPLACEMENT MANAGEMENT EVAL REPORT D0A	03/24/95	04/14/95												
TW00A	LAYOUT OPTIONS ANALYSIS REPORT D0A	03/31/95	03/31/95												
TW00	ALARA ANAL UPDATE RPT.	04/20/95	04/20/95												
TW00	RECOMMENDED LAYOUT CONCEPT REPORT	07/31/95	05/20/95												
TW00	REMOTE HANDLING ROBOTICS EVALUATION REPORT	04/14/95	04/14/95												
TW07	WHS BSSN FINAL RPT.	04/21/95	04/21/95												
1.2.05	REGULATORY														
TW00	TECHNICAL DATA CATALOG	10/20/94	10/20/94												

LEGEND: ☆ - LEVEL 0 SA ◊ - LEVEL 1 SA ▲ - LEVEL 2 SA ▼ - LEVEL 3 SA ◆ - TO BE REVIEWED

Figure 21. Information Management Key Milestone Schedule

FY95 KEY MILESTONE SCHEDULE				FY-1995											
ID	DESCRIPTION	BASLINE	FORECAST	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
9.3.06	INFORMATION MANAGEMENT														
000107	COMPLETE RECORDS TRAINING MODULE 3	03/01/95	03/20/95					▲	◆						
000110	FY97 LONG RANGE PLAN DELIVERED	04/20/95	03/01/95						◆	▲					
000108	COMPLETE RECORDS TRAINING MODULE 4	04/30/95	04/25/95							◆	▲				
000106	DEPLOY RECORDS AWARENESS CBT APPLICATION	07/14/95	07/12/95										▲		
000207	COMPLETE ANNUAL M&O RISK ASSESSMENT	07/20/95	07/20/95										▲		
000118	FY98 SHORT RANGE PLAN DELIVERED	06/10/95	06/30/95											▲	○
000144	DRAFT FY98 WORK PLANS COMPLETED	06/21/95	07/20/95											▲	
000147	CONDUCT COMPLIANCE AUDIT	06/20/95	06/20/95												▲
000109	GENERAL USER APPLICATION DEVELOPED	06/20/95	06/20/95												▲
000208	UPDATE OCRM RBS	06/20/95	06/20/95												▲

LEGEND: ☆ - LEVEL 0 00 ◆ - LEVEL 1 00 ▲ - LEVEL 2 00 ▼ - LEVEL 3 00 ◇ - FORECAST 00

Figure 3. Yucca Mountain Key Milestone Schedule (Continued)

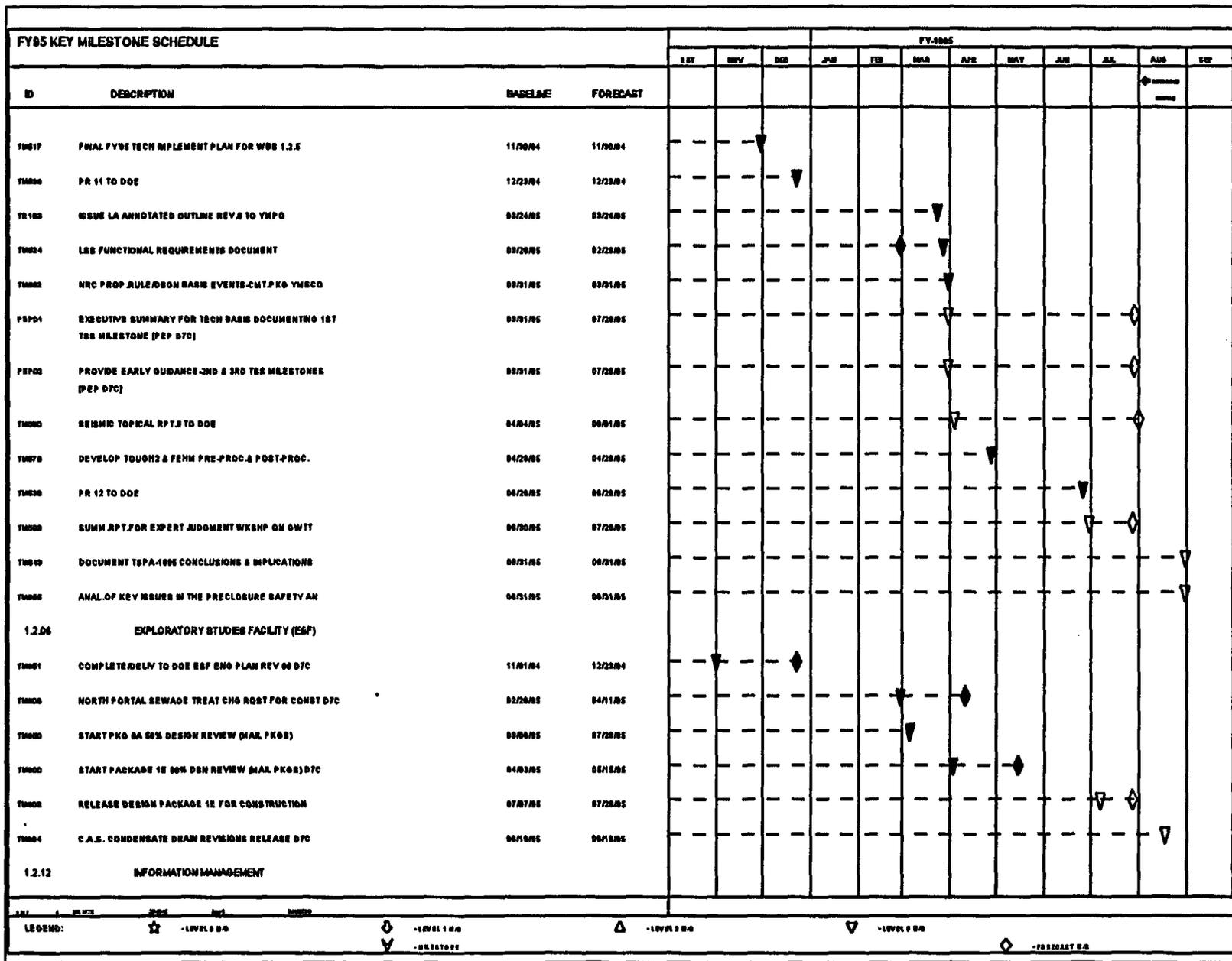


Figure 20. External Relations Key Milestone Schedule

FY95 KEY MILESTONE SCHEDULE				FY1995											
				SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG
ID	DESCRIPTION	BASELINE	FORECAST												
8.3.04	EXTERNAL RELATIONS														
000004	DEPLOY FOR TESTING AN INTEGRATED DIGITIZED AUDIOVISUAL ELECTRONIC CAPABILITY	06/00/95	06/00/95												
000010	DRAFT ANSWERS TO QUESTIONS	06/00/95	07/20/95												

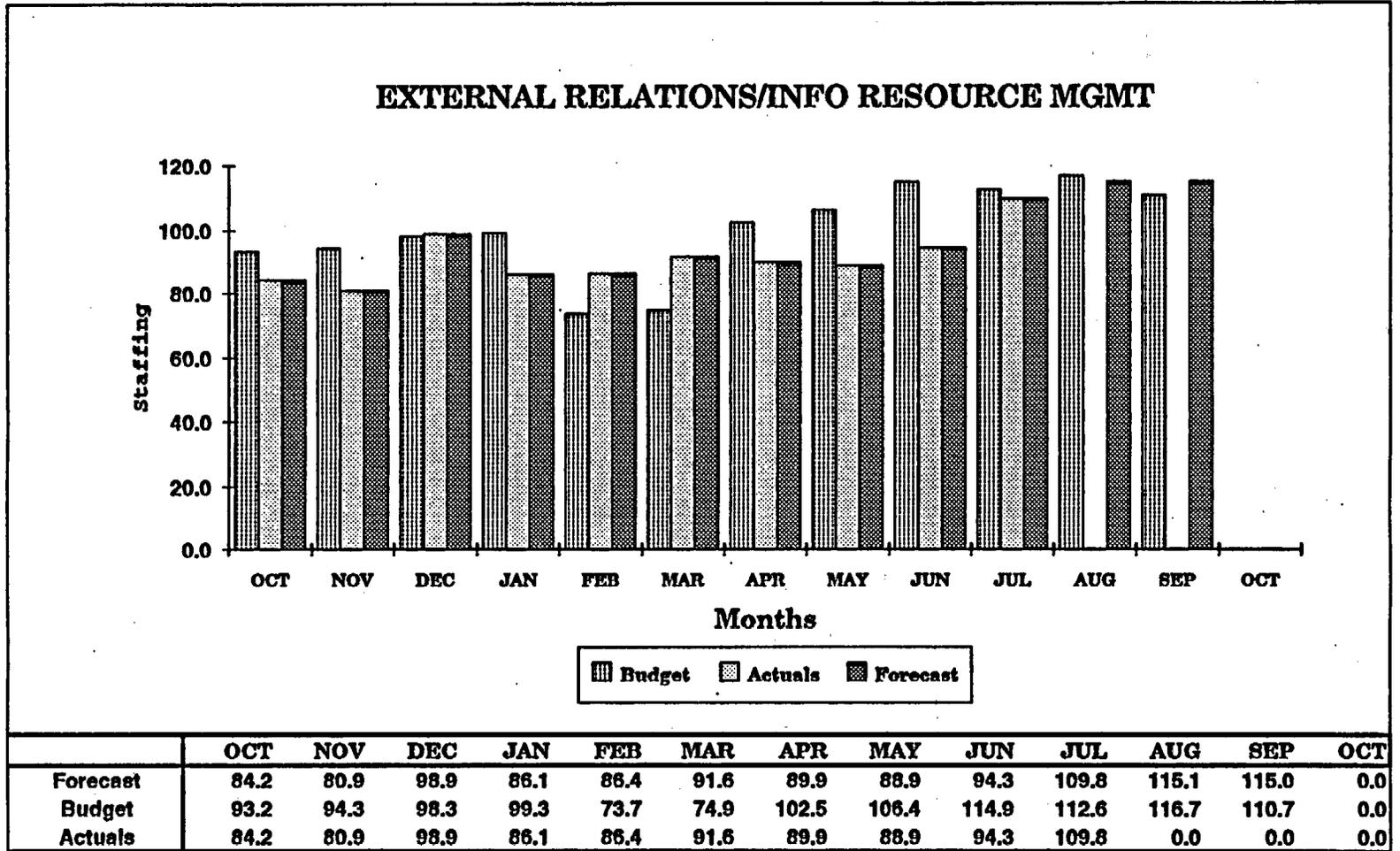
LEGEND: ☆ - LEVEL 1 MO ↓ - LEVEL 1 MO ▽ - LEVEL 1 MO ◆ - FORECAST MO

Figure 3. Yucca Mountain Key Milestone Schedule (Continued)

FY95 KEY MILESTONE SCHEDULE				FY-1995											
				OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
ID	DESCRIPTION	BASELINE	FORECAST												
M0001	IMPLEMENT MDO SAFETY & HEALTH PLAN	03/21/95	07/20/95												
1.2.14	INSTITUTIONAL														
M0002	EXECUTE A PLAN OF ACTION TO INTEGRATE INSTITUTIONAL ACT INTO YMP TECH MGMT AND PLANNING PROCESS	03/21/95	07/20/95												

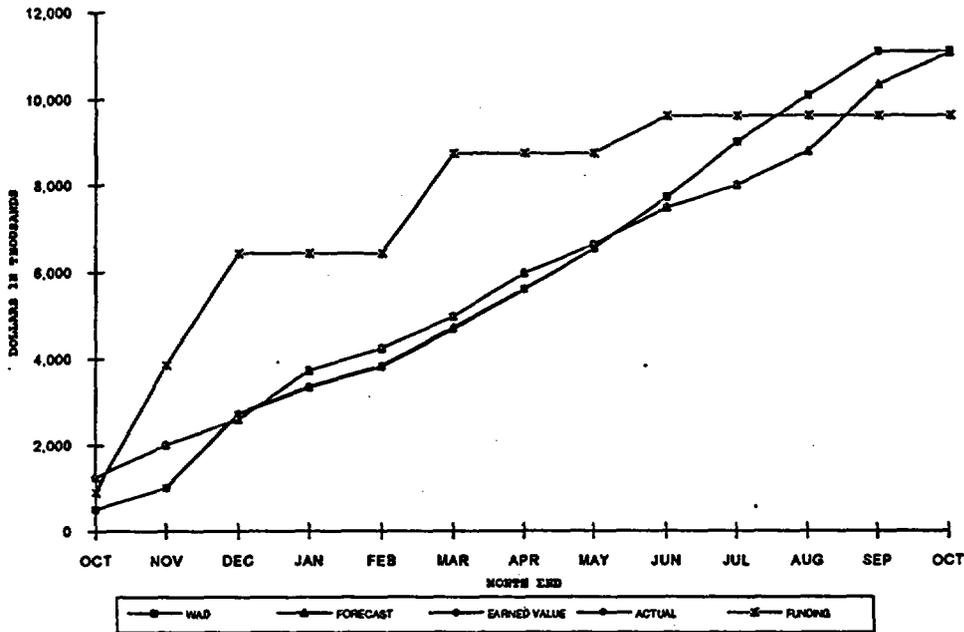
LEGEND: ☆ - LEVEL 0 M0 △ - LEVEL 0 M0 ▽ - LEVEL 0 M0 ◇ - FORECAST M0

Figure 19. External Relations/Information Resource Staffing



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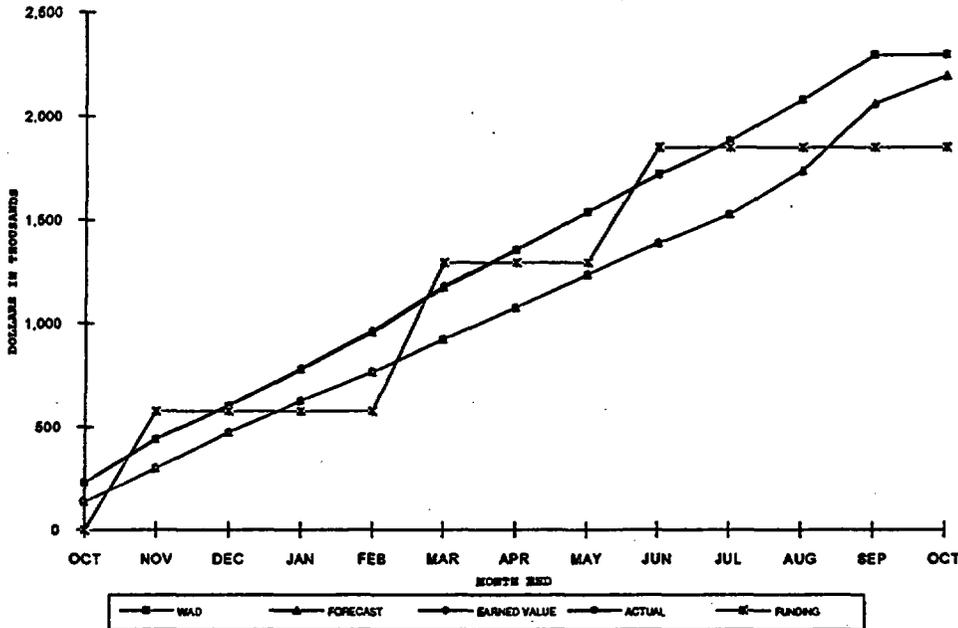
CWBS 9.3.6 INFORMATION MANAGEMENT



		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
MONTH	WAD	494	497	1,720	616	489	870	908	945	1,178	1,276	1,072	997	0
	FORECAST	1,230	774	589	1,134	503	740	1,005	653	843	528	774	1,550	720
	EARNED VALUE	498	501	1,733	621	492	876	889	928	1,178	1,278			
	MONTH ACTUAL	1,230	774	589	1,134	503	740	1,005	653	843	528			
	VAR/SCH	4	4	13	5	3	6	(20)	(17)	0	0			
	VAR/COST	(732)	(273)	1,144	(513)	(11)	136	(117)	275	335	750			
CUM	WAD	494	991	2,711	3,327	3,816	4,686	5,594	6,539	7,717	8,993	10,065	11,062	11,062
	FORECAST	1,230	2,004	2,593	3,727	4,230	4,970	5,975	6,628	7,471	7,997	8,771	10,321	11,041
	EARNED VALUE	498	999	2,732	3,353	3,845	4,721	5,609	6,537	7,715	8,991			
	ACTUAL	1,230	2,004	2,593	3,727	4,230	4,970	5,975	6,628	7,471	7,997			
	VAR/SCH	4	8	21	26	29	35	15	(2)	(2)	(2)			
	VAR/COST	(732)	(1,005)	139	(374)	(385)	(249)	(366)	(91)	244	994			
FUNDING	FY95 FUNDING	900	3,849	3,849	3,849	3,849	6,152	6,152	6,152	7,020	7,020	7,020	7,020	7,020
	PREV. FUNDED	0	0	2,580	2,580	2,580	2,580	2,580	2,580	2,580	2,580	2,580	2,580	2,580
	TOTAL FUNDING	900	3,849	6,429	6,429	6,429	9,732	9,732	9,732	9,600	9,600	9,600	9,600	9,600

**3.2 Waste
Acceptance,
Storage and
Transportation**

CWBS 9.3.4 EXTERNAL RELATIONS



		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
MONTH	WAD	229	206	161	175	180	214	184	184	180	162	168	216	0
	FORECAST	136	161	176	151	136	157	154	160	151	139	200	326	132
	EARNED VALUE	231	211	182	176	182	216	178	179	180	163			
	MONTH ACTUAL	136	161	176	151	136	157	154	160	151	139			
	VAR/SCH	2	2	1	1	2	2	(6)	(5)	0	1			
	VAR/COST	85	80	(14)	25	43	80	24	19	29	24			
CUM	WAD	229	438	609	774	954	1,168	1,352	1,536	1,716	1,878	2,076	2,292	2,292
	FORECAST	136	297	473	624	763	920	1,074	1,234	1,385	1,524	1,733	2,059	2,191
	EARNED VALUE	231	442	604	760	962	1,178	1,356	1,535	1,715	1,878			
	ACTUAL	136	297	473	624	763	920	1,074	1,234	1,385	1,524			
	VAR/SCH	2	4	5	6	8	10	4	(1)	(1)	0			
	VAR/COST	85	145	131	156	199	258	282	301	330	354			
FUNDING	FY85 FUNDING	0	576	576	576	576	1,291	1,291	1,291	1,845	1,845	1,845	1,845	1,845
	PREV. FUNDED	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL FUNDING	0	576	576	576	576	1,291	1,291	1,291	1,845	1,845	1,845	1,845	1,845

Figure 17. External Relations Financial Status

3.2 WASTE ACCEPTANCE, STORAGE AND TRANSPORTATION PROJECT CONTRACT WORK BREAKDOWN STRUCTURE (CWBS) 3.0

MANAGER: A. S. Kubo

3.2.1 Multi-Purpose Canister

MANAGER: J. R. Clark/L. S. Smith

OBJECTIVE(S): Provide technical management and integration of activities relating to development of the Multi-Purpose Canister (MPC) Subsystems and Dry Transfer System (DTS). Provide technical solicitation evaluation support and management of the MPC Subsystems subcontract. Assist the Office of Civilian Radioactive Waste Management (OCRWM) in all aspects of the WAST MPC licensing process. Assist OCRWM in the development of the MPC Environmental Impact Statement (EIS). Assist OCRWM in supporting public information and institutional tasks regarding MPC activities.

3.2.1.1 Progress During Report Period

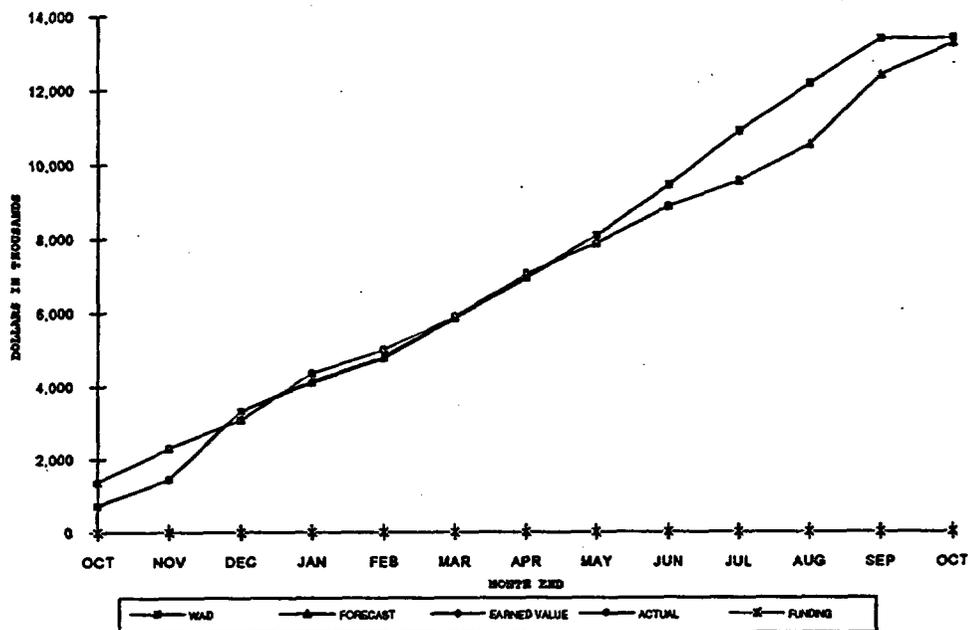
Engineering Development

- MPC Subcontract Activities conducted the first Quarterly Project Review Meeting held at PacTec offices in Tacoma, WA, on July 11, 1995. Completed the review, accepted the MPC Design Plan second submittal, and provided comments on Configuration Management Plan. Received the System Safety Plan and Certification Plan from Westinghouse for review.
- Coordinated the M&O and DOE observation and surveillance of the Westinghouse Audit of PacTec July 31 to August 4, 1995. Received a discrepancy report from M&O QA on the effectiveness of the Westinghouse (GESCO) audit program based on observations of GESCO audits of Westinghouse's Scientific Ecology Group and Energy Systems Business Unit.
- Submitted "The Civilian Radioactive Waste Management System With and Without Monitored Retrievable Storage" report to RW-46.

Regulatory

- Met with the Deputy Director for RW-40 and RW-46 to discuss licensing requirements for an Interim Storage Facility.
- Finalized the presentations and participated in the July 13, 1995, DOE/NRC meeting on OCRWM, M&O, and Westinghouse Quality Assurance (QA) programs. Planned and coordinated presentations, dryruns, and the meeting agenda with participants. This meeting with the NRC outlined DOE's management of the MPC contract and QA.
- Drafted the Central Storage Facility Licensing Strategy for RW-46. This strategy will be used by RW-1 for background information.

EXTERNAL RELATIONS/INFO RESOURCE MGMT



		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
MONTH	WAD	724	706	1,890	790	668	1,084	1,092	1,129	1,359	1,438	1,270	1,213	0
	FORECAST	1,366	935	765	1,285	642	897	1,159	814	994	665	963	1,876	852
	EARNED VALUE	730	712	1,895	797	674	1,093	1,066	1,107	1,359	1,438			
	MONTH ACTUAL	1,366	935	765	1,285	642	897	1,159	814	994	665			
	VAR/SCH	6	6	15	7	6	9	(26)	(22)	0	0			
	VAR/COST	(536)	(223)	1,130	(486)	32	196	(93)	293	365	773			
CUM	WAD	724	1,430	3,310	4,100	4,768	5,852	6,944	8,073	9,432	10,870	12,140	13,353	13,353
	FORECAST	1,366	2,301	3,066	4,351	4,993	5,890	7,049	7,863	8,857	9,522	10,505	12,381	13,233
	EARNED VALUE	730	1,442	3,337	4,134	4,808	5,901	6,967	8,074	9,433	10,871			
	ACTUAL	1,366	2,301	3,066	4,351	4,993	5,890	7,049	7,863	8,857	9,522			
	VAR/SCH	6	12	27	34	40	49	23	1	1	1			
	VAR/COST	(636)	(850)	271	(217)	(185)	11	(82)	211	576	1,349			
FUNDING	FY95 FUNDING	0	0	0	0	0	0	0	0	0	0	0	0	0
	PREV. FUNDED	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL FUNDING	0	0	0	0	0	0	0	0	0	0	0	0	0

Figure 16. External Relations/Information Resource Management Financial Status

Environmental, Safety and Health

- Issuance of the Federal Register Notice of Availability for the MPC EIS Implementation Plan (IP) still awaits resolution of GC-51's demand that alternative MPC designs must be analyzed in the MPC EIS. Held teleconferences among staff from RW-46, GC-51 and Argonne National Laboratories (ANL) on July 24 and 25, 1995, to discuss final resolution of alternative design treatment in the MPC EIS IP and the Draft Environmental Impact Statement (DEIS). Tentatively agreed to include a sensitivity analysis of alternative design feature effects. RW-46 provided a brief summary description to be included in the IP and a briefing summary for RW-1 to use at a July 31, 1995, meeting between RW-1 and GC-1 to discuss the MPC EIS.
- Developed briefing materials on environmental and geologic areas of site investigation and environmental report for Option 6 - Central Storage Facility.

3.2.1.2 Issues and Concerns

- None.

4.3.3 External Relations and Information Resource Management Variances

- The cumulative cost variance of \$1349/12% is due to a \$355K/19% underrun in External Relations and a \$994/11% underrun in Information Resource Management. The cost underrun in External Relations is due to ODC purchases occurring later in the fiscal year than planned and staff vacancies. There is no significant impact or corrective action required. The cost underrun in Information Resource Management is due to delayed/deferred staffing, particularly in the Records, area and delayed booking of long-lead commitments, specifically for ADP equipment. There is no significant impact or corrective action required.

3.2.2 Transportation System

MANAGER: B. R. Teer/L. S. Smith

OBJECTIVE(S): Provide management and integration of all activities relating to transportation cask development, transportation planning and operations, service and maintenance of transportation equipment, application of Systems Engineering to Transportation, collection and maintenance of site-specific engineering and operations data, transportation economic and systems analysis, and integration of transportation with other Civilian Radioactive Waste Management System (CRWMS) program elements. Manage transportation database formulations, model development, and computer code development activities. Assist OCRWM in supporting policy analysis and issue resolution.

3.2.2.1 Progress During Report Period

System Engineering

- Completed a draft, including Transportation Geographic Information System (TGIS) graphics of the routing analysis, of rail access to the Caliente, Carlin, Jean, and Valley rail spurs under evaluation for the M&O Las Vegas. The draft was distributed for internal review. The final product will be included in the *Nevada Potential Repository Preliminary Transportation Strategy Study 2*.
- Prepared a new "Transportation Radiological Exposures Estimates Input Data" section for the Transportation Data and Assumptions Report. The narrative and tables from this section provide the appropriate data for estimating radiological exposures during truck and rail transportation of spent nuclear fuel.
- Developed Transportation Geographic Information System graphics and text for an article to appear in TRW's publication "Technology Review."

Casks

- Held a second meeting between General Atomics (GA) and the Nuclear Regulatory Commission (NRC) on July 25, 1995. GA presented their approach to resolving the NRC comments on the Safety Analysis Reports for the GA-4 and GA-9 Legal Weight Truck (LWT) Casks and received clarification on comments. GA will meet with the NRC in late August 1995 to discuss the GA-4 half scale model drop tests and structural analysis comments.
- Attended a meeting with GA and RW-46 on July 26, 1995, to discuss the GA-4 half-scale model drop test instrumentations and procedures. Initial comments on the draft test plan and procedures were provided verbally to GA during the meeting. The DOE and M&O comments on the procedures are due to GA on August 2, 1995. GA is proposing to perform the dummy cask test during mid August 1995.
- Attended a meeting with GA, RW-46, and Oak Ridge National Laboratory (ORNL)/Y-12 personnel on July 26, 1995, to discuss lessons learned by GA during the fabrication of the GA-4

Digital Media Database (DMD)

- Completed integration and with NIC installation, became capable of providing printable image files per DMD NWG recommendation.

Unified Scanning System (USS)

- Met WAD milestone and deliverable "Analysis of RDMS/CTS Phase 1 Integration Complete" on-schedule by completing the engineering analysis for the USS. Demonstrated and briefed USS to HQ Information Resources Management team leader and KENROB representatives.

Records Awareness Training

- Completed development of the CBT application for the Records Awareness Training Program and deployed it ahead of schedule to pilot users in Vienna on July 11, 1995.

OCRWM Records Management Order

- Delivered RW 1324, the OCRWM Records Management Order to RW-15; all comments from RW ODs were incorporated or resolved.

NRC Visit

- NRC visited the Vienna Records Processing Center to observe records processing operations and the records management system.

COTS Upgrades

- Completed upgrades to TimeLine V6.1, PowerPoint V4, and Lotus 123 V5. The upgrade to WordPerfect 6.1 is 80 percent complete.

Software Operational Systems Review

- The Software Operational Systems Review was performed and documented and is currently in the review and sign-off process.

Computer Protection Program Plan

- Updated and delivered the Computer Protection Program Plan and Risk Assessment on time to RW-15.

4.3.2.2 Issues and Concerns

- None.

half-scale model. DOE may solicit a proposal from ORNL/Y-12 to resolve potential manufacturing issues for the GA-4/9 prototype casks.

- The GA-4 half scale cask model being fabricated by Precision Components Corporation originally scheduled on July 13, 1995, was rescheduled for August 15, 1995. GA anticipates that the model will be ready for the helium leak test on August 2, 1995, followed by the pneumatic leak tests.
- The M&O's review comments to the "GA-9 LWT Trailer Road Profile Test and Durability Test Report" were completed and forwarded to RW-40. The report for DOE approval was recommended pending the satisfactory resolution and incorporation of the comments. Also forwarded a letter of formal notification of the satisfactory completion of the GA-9 LWT Trailer Durability Test to DOE.

Transportation Support Systems

- Delivered the Preliminary Drafts of the Dresden Units 2 and 3 and the Yankee-Rowe Site-Specific Servicing Plans to RW-40.
- Revised the estimate of utility modal preference from 19 truck, 14 small rail, and 88 large rail cask users to 13 truck, 11 small rail, and 97 large rail cask users.
- Presented technical aspects of the LWT test program to the Institute of Nuclear Materials Management Annual Meeting in Palm Desert, CA. Questions from the audience addressed standards and aspects of equipment selection and driver training issues.
- Provided a revised LWT test SOW, additional test procedure approvals, and the M&O position on automatic slack adjusters to American Association of Petroleum Geologists (AAPG). Comments are anticipated within the next 20 days.
- Visited the AAPG test facility in New Carlisle, IN, with RW-46 personnel to resolve preliminary issues regarding the test Statement of Work revision. The team witnessed brake testing activities currently in progress. A test track driver commented that the LWT handled "extremely well" during braking-distance tests. The air-ride suspension system is performing precisely as intended, and the load distribution is being well managed even during hard braking events (60 to 0 mph).

Project Management

4.3.2 Information Management Services CWBS 9.3.6

MANAGER: C. L. Kerrigan

OBJECTIVE(S): Evaluate, develop, and implement plans, policies, procedures, and information systems to facilitate the management of OCRWM program information, data, and records. Operate, maintain, and provide enhancements to the Records Data Management System (RDMS) for the storage and retrieval of electronic images of OCRWM records. Manage and operate the OCRWM Records Management System. Operate OCRWM's Quality Records Center, Correspondence Control Unit, and Mail Room. Provide computer operations and support to the M&O Vienna and Capital Gallery facilities.

4.3.2.1 Progress During Report Period

Records Data Management System (RDMS)

- Imaged approximately 25,200 pages of records and diagnosed and corrected, several startup problems including an optical commit "hang" fix and CD/R general protection faults. Installed an RDMS access server in Vienna to alleviate operational disruptions in the Vienna RPC caused by WAN outages. Work continues on a CD/R system to distribute record images to remote sites, such as Sandia and Los Alamos.

Integrated Tracking System (ITS)

- Wrote a view design feasibility memo for CTS, RW Tracker, and OMTS concurrence and prepared a draft of operational and recovery procedures, and design of enhanced batch job for repeating. Added the capability to select either CTS and RW records or only OMTS for ITS updates, rather than both at the same time. Presented Phase 2 tasking to RW-15 and RW-2, who gave direction to provide live data uploads into ITS and integrate RTS. A schedule for Phase 2 is being developed.

HQ Monitoring/Evaluating Review Working Group (M/ERWG)

- Participated in the M/ERWG and were tasked to research the possibility of including ATS and PBCCB in CTS and RW Tracker. The follow recommendations were made: further evaluate ATS for transitioning to CTS after transitions from REECO; retain the PBCCB; and add PBCCB actions to the ITS view(s).

- Delivered a draft of "Radionuclide Release Fraction Characterization During Transportation Accident" to RW-46.

Institutional

- Published Section 180© Notice of Inquiry Supplemental Information in the Federal Register on July 18, 1995; preparing the Notice of Proposed Policy and Procedures to be published in March 1996.
- Developed a matrix of legislation under consideration in the U.S. House and Senate and the language contained in this legislation that would provide funds for technical assistance and training to States and Tribes, for submission to RW-45.
- Provided information during a meeting on July 25, 1995, with RW-40 and on the environmental report and Section 180© for activities, schedule, and cost of accepting waste at an interim storage facility starting December 1999.

3.2.2.2 Issues and Concerns

- None.

copies of obsolete OCRWM documents weighing 55,114 pounds. Received payment of \$455.70 from Browning-Ferris Industries for the first OCRWM document recycling effort (6 tons), which was forwarded to M&O Finance for deposit in Nuclear Waste Fund, as previously directed. Another payment is forthcoming for the second recycling effort.

- Distributed 15,521 copies of OCRWM publications from the warehouse.
- Continued development and implementation of the OCRWM Home Page, which was accessed a total of 12,954 times during the month of July. Accomplishments included coordinating with KENROB to post announcements concerning interruption of warehouse services, RW-1's testimony before Congress, OCRWM Transportation Report, Contingency Plan, new Calendar of Events, and the preparation and mailing of 950 letters communicating the discontinuation of INFOLINK and the availability of OCRWM Home Page.
- Continued development and testing of the Digital Media Database, including addition of OCRWM Program Plan Briefing Book.

Education Programs

- Delivered the Second Edition of the OCRWM Curriculum "Science, Society, and America's Nuclear Waste," to Harold Brandt, RW-15, for final approval prior to printing.

4.3.1.2 Issues and Concerns

- None.

3.2.3 Waste Acceptance

MANAGER: B. M. Cole

OBJECTIVE(S): Provide management and integration of all activities relating to the Standard Disposal Contract, the Spent Nuclear Fuel (SNF) Verification Plan, Waste Acceptance Criteria (WAC) for Alternative Waste Forms, Materials Control and Accountability (MC&A), Safeguards and Security, Waste Acceptance Operations Plan, application of Systems Engineering to Waste Acceptance, interaction with the Energy Information Administration (EIA), support of Integrated Database (IDB) preparation, and development of a Unified Database (UDB) system.

3.2.3.1 Progress During Report Period

Contract Policy and Procedures

- Supported briefing package preparation for RW-2's meeting with the Nuclear Energy Institute (NEI) addressing utility responsibility for transporting SNF beginning in 1998.
- Completed draft issue paper for the RW Contracting Office addressing standard contract requirements guidance to purchasers for canistered spent fuel verifications.
- Supported RW-44 in preparation for the upcoming transportation seminar for RW-1/2 in mid-August by attending several coordination meetings for this seminar and preparing drafts of the waste acceptance issue presentations.
- Helped develop responses to RW-44 questions relating to waste acceptance activities requirements for accepting waste beginning in 1999 and to RW-1 testimony on the Hill.

Pre-Acceptance Operations

- Reviewed and commented on the preliminary draft report "System Impacts of Alternative Waste Characteristics Potentially Delivered to the CRWMS under the Program Approach."
- Submitted the Final Verification Plan to RW-44.
- Developed procedures for SNF data verification to be used to ensure that accurate and complete data are collected at the time multi-element canisters are sealed.

4.3 EXTERNAL RELATIONS AND INFORMATION RESOURCE MANAGEMENT

CWBS 9.3.4, 9.3.6

4.3.1 External Relations

CWBS 9.3.4

MANAGER: K. H. Whitney

OBJECTIVE(S): Manage and operate the OCRWM National Information Center; develop, implement, maintain, integrate, and disseminate program-wide public, educational, and technical information materials, including publications, audiovisual resources, video productions, exhibits, presentations, briefings, INFOLINK, and OCRWM Home Page; manage the inventory of materials; and implement the program-wide integration of DOE communications policies and publications procedures.

4.3.1.1 Progress During Report Period

Communications Integration

- Assisted YMSCO with an OCRWM HQ review of draft EIS fact sheets.
- Delivered the Communications Integration Activity Report for FY95 First, Second, and Third Quarters.

Public Information

- Delivered the summer 1995 issue of the "OCRWM Bulletin" to RW-15 to submit to DOE Printing.
- Staffed and delivered reports on the display of OCRWM exhibits at the American Nuclear Society (ANS) Technology Expo and the National Conference of State Legislatures Annual Conference.
- Delivered draft "Answers to Your Questions on Spent Nuclear Fuel and High-Level Radioactive Waste" to RW-15 for review.
- Delivered camera-ready copy of the "Program Funding" fact sheet to RW-15 to submit to DOE Printing.
- Developed the "1995 OCRWM Compilation Videotape," coordinated with vendor for duplication of 500 tapes, reviewed masters for content and clarity, designed tapebox cover, prepared mailing labels, and completed mailing to 177 people on waiting list.
- Assisted YMSCO in transition of warehouse from Oak Ridge, TN to Beatty, NV. To limit the trucking costs for relocating inventory of outdated and superseded OCRWM publications, developed a second set of recommendations, received authorization, and recycled 266,464

- Attended Quarterly EM/RW HLW meeting focussing on ongoing issues ranging from the Memorandum of Agreement to the production records that RW will require of EM at the time of waste acceptance.
- Attended the Waste Acceptance and Transportation Task (WATT) Team Meeting of the SNF Steering Group. The meeting focused on the Memorandum of Agreement, fees, and establishing a basis for allocation of the EM wastes.

Waste Acceptance Operations

- Identified resources and associated costs required for IAEA equipment and inspection to support an Interim Central Storage Facility.
- Developed the Physical Protection and MC&A requirements of the Integrated Safeguards and Security Requirements Analysis (ISSRA). Identified applicable regulatory guides, NUREGS, and DOE Orders and began reviewing Code of Federal Regulations (CFRs) in support of ISSRA development.
- Prepared a list of references describing safeguards equipment for digital image and remote monitoring surveillance, tamper-indicating systems, and Non-Destructive Assessment (NDA) measurement equipment for SNF to support planning for proposed shipping of SNF to an Interim Central Storage Facility.

Logistics and Systems Planning

- Delivered Revision 0 of the Technical Document Preparation Plan (TDPP) for WA DRD.
- Developed a WA schedule that would support central storage facility operations in late 1999.
- Developing Waste Acceptance Element Design Requirements Document.
- Supported development of the Waste Acceptance, Storage and Transportation Operations Plan (WAST-OP), including defining the purpose, scope, content, and schedule.

Project Management

- Prepared the RW-44/M&O FY96 Waste Acceptance Annual Plan.
- Prepared the Waste Acceptance M&O FY95 budget forecast.

Nuclear Fuel Data

- Delivered the RW-859 form, "Draft Report - RW-859 Form Revisions Recommendations" update to DOE.

**4.3 Internal
Relations
/Information
Resource
Management**

- Evaluated the third draft of the 1994 RW-859 database and completed the report on the findings of the evaluation.

Energy and Spent Fuel Discharge Projections

- Met with RW-44, DOE EIA, David Andress and Assoc., and Z. Inc. to discuss the methods used in the projections database and how to document the year-to-year variations in the projection database.

IDB Support

- Developed the RW input for inclusion in the spent fuel section of the 1995 IDB report.

Unified DataBase System (UDB)

- Defined the hierarchy, scope, and documentation of UDB functional requirements. Drafted an annotated outline for the "UDB Phase I Functional Description Document," the specification for UDB system-level functional requirements.
- Prepared new QAP-2-0 Activity Evaluations for the UDB Phase I planning and requirements-development effort.
- Met with PNL for the continuation of the UDB Phase I Prototype with PNL. Provided PNL development team review comments on the UDB Prototype and suggested direction for modifications to the prototype.
- Started development of a cross-walk map between the proposed RW-859 5-year supplement database, the current RW-859, and the FICA database for use in the Phase I UDB.

Issues and Concerns

- None.

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3.2.4 Project Integration

MANAGER: T. R. Stevens

OBJECTIVE(S): Conduct project financial and technical integration activities across the WAST project to maintain the WAST project development.

3.2.4.1 Progress During Report Period

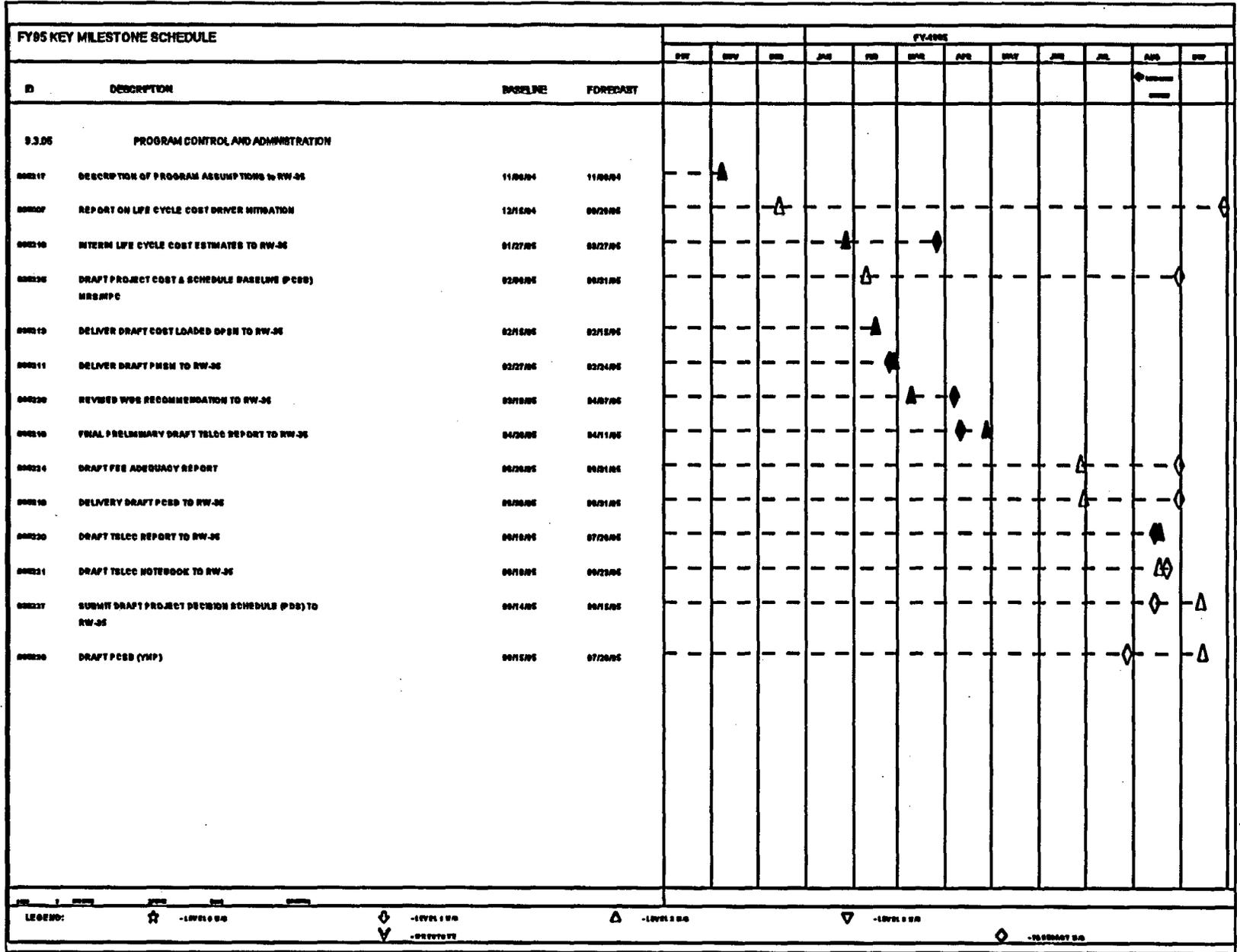
Project Scheduling and Control

- Delivered Revision 1 of the Project Work Breakdown Structure (PWBS) Index and Dictionary to RW-40 for staff review on July 20, 1995.
- Continued to work on guidance for developing and implementing Project master-sub relationships. This will allow M&O responsible managers to maintain all detailed schedule data and electronically update the (master) Project Summary Schedule. As part of this integration task, Project Integration worked with the MPC Project Engineer in the preparation of their MPC schedule for delivery to RW-46.

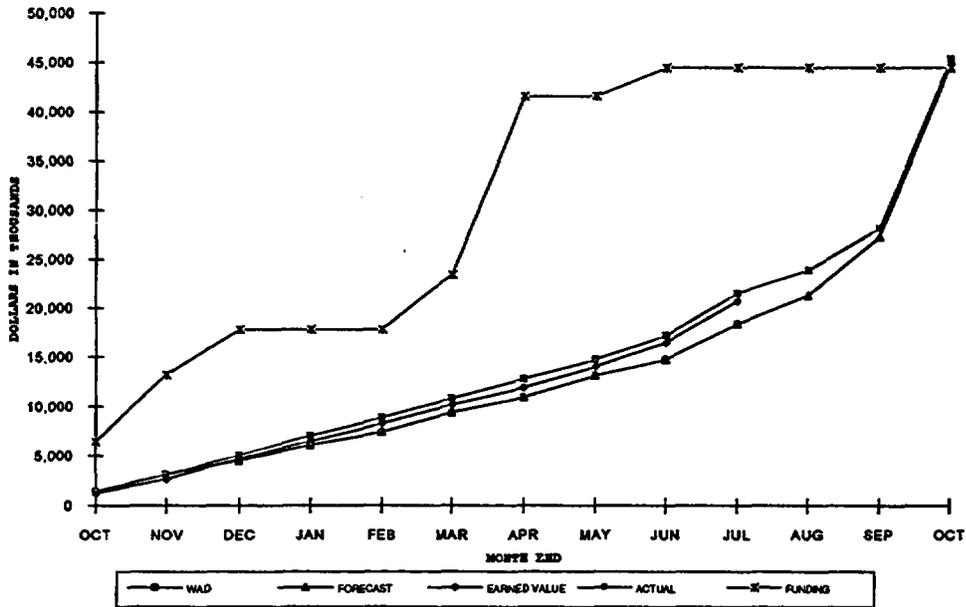
Project Systems Engineering

- Completed and delivered the Cost, Health, and Safety Impacts of a Hybrid MPC System Report to RW-46. This report compares the cost, health, and safety aspects of a Hybrid MPC System with the current Program Approach. A Hybrid MPC System limits the use of MPCs only to cases where dry interim storage is required.
- Completed and delivered the initial WAST Project Q-List to RW-40 for review and approval.
- Briefed RW-40 staff on plans for the WAST Project Test and Evaluation Master Plan (T&EMP). A preliminary draft is due this fiscal year. The T&EMP will be the basic planning document to describe WAST Project T&E policy, objectives, requirements, general methodology, responsibilities, and T&E phase scheduling. The WAST project T&EMP also defines how the policies and requirements of the OCRWM TEMP will be satisfied by the WAST project.
- Coordinated WAST support for the Total System Life-Cycle Cost (TSLCC) analysis and supported responding to TSLCC ICE Review Team questions.

Figure 15. Program Control and Administration Key Milestone Schedule



**CWBS 3.0 WASTE ACCEPTANCE, STORAGE & TRANSPORTATION
(WAST) PROJECT**



		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
MONTH	WAD	1,343	1,715	1,985	1,995	1,768	1,960	1,964	1,977	2,428	4,258	2,470	4,249	17,159
	FORECAST	1,480	1,627	1,371	1,607	1,348	1,916	1,524	2,239	1,574	3,649	2,903	6,074	17,434
	EARNED VALUE	1,235	1,417	2,050	1,742	1,801	1,864	1,767	2,100	2,487	4,148			
	MONTH ACTUAL	1,480	1,627	1,371	1,607	1,348	1,916	1,524	2,239	1,574	3,649			
	VAR/SCH	(108)	(268)	85	(253)	35	(68)	(217)	123	59	(110)			
	VAR/COST	(245)	(210)	679	135	455	(52)	243	(129)	913	499			
CUM	WAD	1,343	3,058	5,043	7,038	8,804	10,764	12,748	14,725	17,153	21,411	23,881	28,130	45,289
	FORECAST	1,480	3,107	4,478	6,085	7,431	9,347	10,871	13,110	14,684	18,333	21,236	27,310	44,744
	EARNED VALUE	1,235	2,652	4,702	6,444	8,245	10,109	11,876	13,976	16,463	20,611			
	ACTUAL	1,480	3,107	4,478	6,085	7,431	9,347	10,871	13,110	14,684	18,333			
	VAR/SCH	(108)	(406)	(341)	(594)	(559)	(635)	(672)	(749)	(690)	(800)			
	VAR/COST	(245)	(127)	133	313	455	(52)	243	(129)	913	499			

Figure 14. International Waste Management Technology Key Milestone Schedule

FY95 KEY MILESTONE SCHEDULE				FY-1995												
ID	DESCRIPTION	BASELINE	FORECAST	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
9303	INTERNATIONAL WASTE MANAGEMENT TECHNOLOGY															
930310	NADRA ANNUAL PROJECT PLAN	02/20/95	04/10/95													
930320	AECL ANNUAL PROJECT PLAN	02/20/95	05/10/95													
930330	SKB ANNUAL PROJECT PLAN	06/01/95	07/20/95													

★	-LEVEL 0 SA	◇	-LEVEL 1 SA	△	-LEVEL 0 SO	▽	-LEVEL 0 SO	◊	-FORECAST SA
▽	-LEVEL 1 SO								

Figure 5. WAST Project Staffing

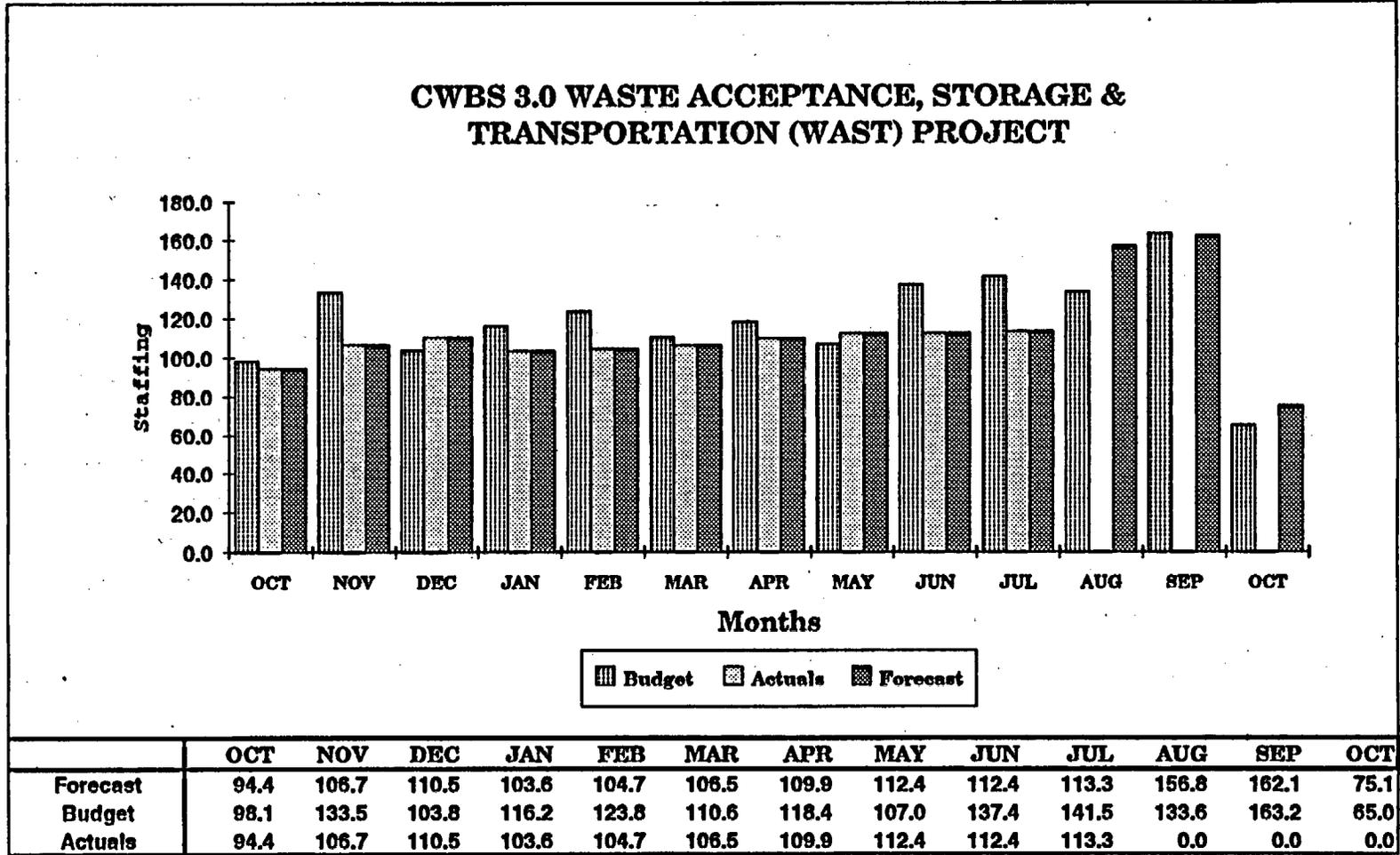


Figure 13. Strategic Planning Key Milestone Schedule

FY95 KEY MILESTONE SCHEDULE				FY-1995											
				OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
ID	DESCRIPTION	BASELINE	FORECAST												
9.3.92	STRATEGIC PLANNING														
PEP001	ENHANCED INTERACTIONS WITH TRG PEP A1A(1)		03/01/95												
PEP006	CONTINGENCY PLANNING PROCESS		03/01/95												
000000	DRAFT PROGRAM PLAN	10/20/94	10/10/94												
000004	FINAL PROGRAM PLAN	12/20/94	12/20/94												
000001	DRAFT PROGRAM PLAN ANNUAL UPDATE	06/20/95	06/20/95												

LEGEND: ☆ - LEVEL 0 BA ◊ - LEVEL 1 BA ▲ - LEVEL 2 BA ▼ - LEVEL 3 BA ◆ - FORECAST BA

Figure 12. Regulatory and Licensing Key Milestone Schedule

FY95 KEY MILESTONE SCHEDULE				FY-1995											
				SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG
ID	DESCRIPTION	BASELINE	FORECAST												
9.2.02	REGULATORY COMPLIANCE														
000001	FINAL NEPA PROCEDURES MANUAL	04/20/95	04/21/95												
000002	1995 OCREWM EESH MANAGEMENT PLAN	04/20/95	04/20/95											▽	
000003	FBCCB DRAFT OF ROD REV. 1	04/20/95	04/20/95											◇	

LEGEND: ☆ - LEVEL 0 DO ◇ - FORECAST DO
 ▽ - LEVEL 1 DO △ - LEVEL 2 DO
 ▽ - MILESTONE

Figure 6. WAST Project Key Milestone Schedule (Continued)

FY95 KEY MILESTONE SCHEDULE				FY-2000							
ID	DESCRIPTION	BASELINE	FORECAST	Q97	Q97	Q98	J98	F98	Q98	Q99	Q99
0000	ISSUE MOI ON MPC EM	10/26/94	10/26/94								
010004	FY95 FIVE YEAR ENVIRONMENTAL, SAFETY & HEALTH PLAN	06/10/95	06/10/95								

LEGEND: ☆ -LEVEL 000 ◊ -LEVEL 000 △ -LEVEL 000 ▽ -LEVEL 000

Figure 11. Systems Integration Key Milestone Schedule (Continued)

FY95 KEY MILESTONE SCHEDULE				FY-1995												
				SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
ID	DESCRIPTION	DATELINE	FORECAST													
000012	UPDATES TO THE CONCEPTUAL SYSTEM DESCRIPTION	09/01/95	09/01/95	-	-	-	-	-	-	-	-	-	-	-	-	▲
000000	DEVELOPMENT OF INTEGRATED DESIGN BASIS FUEL DESCRIPTION	09/20/95	09/20/95	-	-	-	-	-	-	-	-	-	-	-	-	▲
000000	PROGRAMMATIC RISK ANALYSIS	09/20/95	09/20/95	-	-	-	-	-	-	-	-	-	-	-	-	▲
020027	CB PHASE 3 ACCEPTANCE TEST	10/01/95	10/01/95	-	-	-	-	-	-	-	-	-	-	-	-	
000000	CB PHASE 3 OPERATIONAL (PFP 950)	02/10/96	02/10/96	-	-	-	-	-	-	-	-	-	-	-	-	

LEGEND: ☆ -LEVEL 1 DD ▲ -LEVEL 2 DD ▼ -LEVEL 3 DD ◆ -P0300007 DD

◇ -LEVEL 4 DD ▼ -RESTORE

Figure 6. WAST Project Key Milestone Schedule (Continued)

FY95 KEY MILESTONE SCHEDULE				FY-1995								
ID	DESCRIPTION	BASELINE	FORECAST	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
3.2.01	TRANSPORTATION SYSTEMS ENGINEERING											
PEP201	EVALUATION REPORT ON OA-4 RISK ASSESSMENT PERFORMED BY LNL PEP CBE(S)	06/01/95	07/01/95									
308100	FINAL REFERENCE TRANSPORTATION & DATA ASSUMPTIONS REPORT	06/30/95	08/20/95									
3.2.02	CASKS											
308121	TRACTOR/TRAILER TEST REPORT	06/20/95	06/20/95									
308126	DRAFT REPORT ON BURNUP VERIFICATION MEASUREMENT	07/20/95	04/20/95									
308128	COMMENTS ON OA-4 HALF SCALE MODEL TEST EVALUATION REPORT	07/20/95	06/20/95									
7024	COMPLETE HALF-SCALE MODEL (OA-4)	07/31/95	07/31/95									
7024A	COMPLETE OA-4 CASK HALF-SCALE TEST	07/31/95	07/31/95									
308129	COMMENTS ON OA ANSWERS TO 1ST ROUND NRC QUEST ON OA-4/8 BARS	06/21/95	07/20/95									
3.2.04	SUPPORT SYSTEMS											
30800	TRANSPORTATION SYS OPERATIONS PLAN (TSDP) REV. 0	11/20/94	11/10/94									
308100	FIRST YEAR PURCHASERS CAPABILITY TO ACCEPT MPC, PRELM DRAFT REPORT	05/21/95	05/24/95									
308100	FIRST YEAR PURCHASERS NEAR SITE INFRASTRUCTURE EVALUATIONS SUMMARY PRELM DRAFT REPORT	06/21/95	07/24/95									
308140	ANNUAL HIGHWAY/RAIL ISSUE ID & RESOLUTION PROGRESS REPORT	06/21/95	07/25/95									
308001	TRANSPORTATION SYS ELEMENT OPS PLAN	06/21/95	06/20/95									
308144	FINAL OPERABILITY REPORT FOR LMT TRACTOR TESTING (90 DAYS AFTER TEST REPORT)	06/20/95	06/20/95									
308145	RESULTS OF THE HUMAN FACTORS ENG DATA FROM LMT TRACTOR TEST (120 D AFTER TEST REPORT)	06/20/95	06/20/95									

LEGEND: ☆ - LEVEL 0 SA ◊ - LEVEL 1 SA ▲ - LEVEL 2 SA ▼ - LEVEL 3 SA
 ◊ - MILESTONE

Figure 11. Systems Integration Key Milestone Schedule

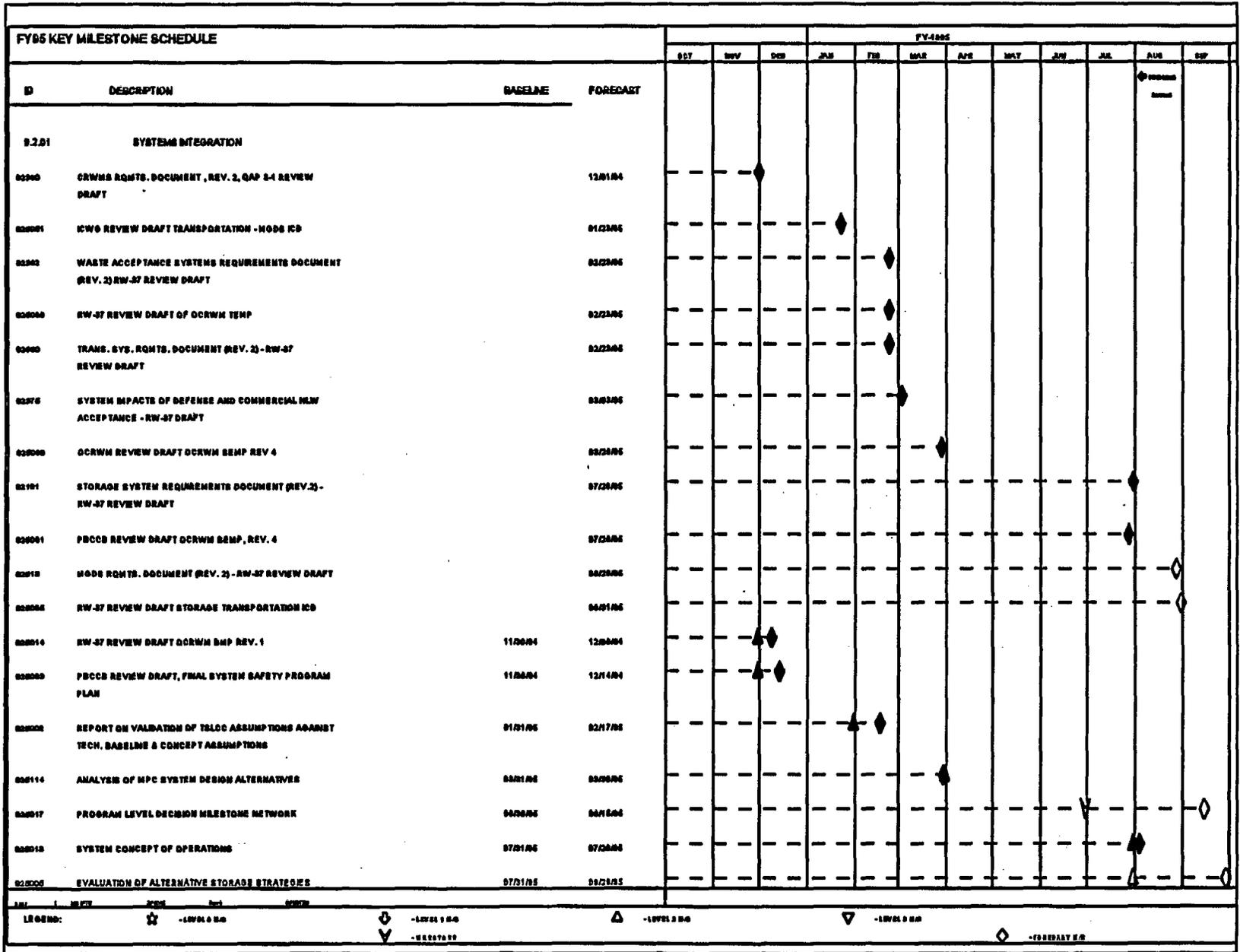


Figure 6. WAST Project Key Milestone Schedule (Continued)

FY95 KEY MILESTONE SCHEDULE				FY-1995													
ID	DESCRIPTION	BASELINE	FORECAST	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
00000	12ST MPC EMERG RESPONSE & RECOVERY STUDY	06/20/95	06/20/95														
3.2.05	REGULATORY																
000107	REGULATORY IMPACTS ON THE TRANSPORTATION RISK MGT STRATEGY	06/20/95	06/20/95														
3.2.13	ENVIRONMENT, SAFETY, AND HEALTH																
00000	OCRWM TRAN RISK MGT PROG STRATEGIC PLAN PRELIM DRAFT (PEP COE(1))	01/10/95	03/10/95														
PEP202	DRAFT WHITE PAPER ON IMPACT OF 12ST MPC'S ON RAIL NETWORKS (PEP COE(2))	02/01/95	01/01/95														
000108	OCRWM TRANSPORTATION RISK MGT PROGRAM STRATEGIC PLAN FINAL DRAFT (PEP COE(4))	03/01/95	03/01/95														
PEP203	COMPLETE INSTALLATION OF RADSP MODULE ON TRANSNET (PEP COE(7))	06/01/95	07/01/95														
000109	RISKING EVALUATION REPORT (PEP COE(8))	06/20/95	06/20/95														
PEP204	COMPLETE RISKING TRAINING MODULE (PEP COE(9))	06/01/95	06/01/95														
000107	OCRWM RISK MGT STRATEGY IMPLEMENTATION PLAN FINAL	06/20/95	06/20/95														
3.2.14	INSTITUTIONAL RELATIONS																
PEP206	RECOMMEND APPROACH FOR DOE POLICY DEALING WITH 190(C) (PEP COE)	07/01/95	07/01/95														
PEP208	CRITERIA STRAWMAN FOR DOE ON THE ROUTING STRATEGY (PEP COE)	07/01/95	07/01/95														

LEGEND: ☆ - LEVEL 0 GO ↓ - LEVEL 1 GO △ - LEVEL 2 GO ▽ - LEVEL 3 GO ◇ - TO BE MET 90

Figure 10. Program Management and Integration Staffing

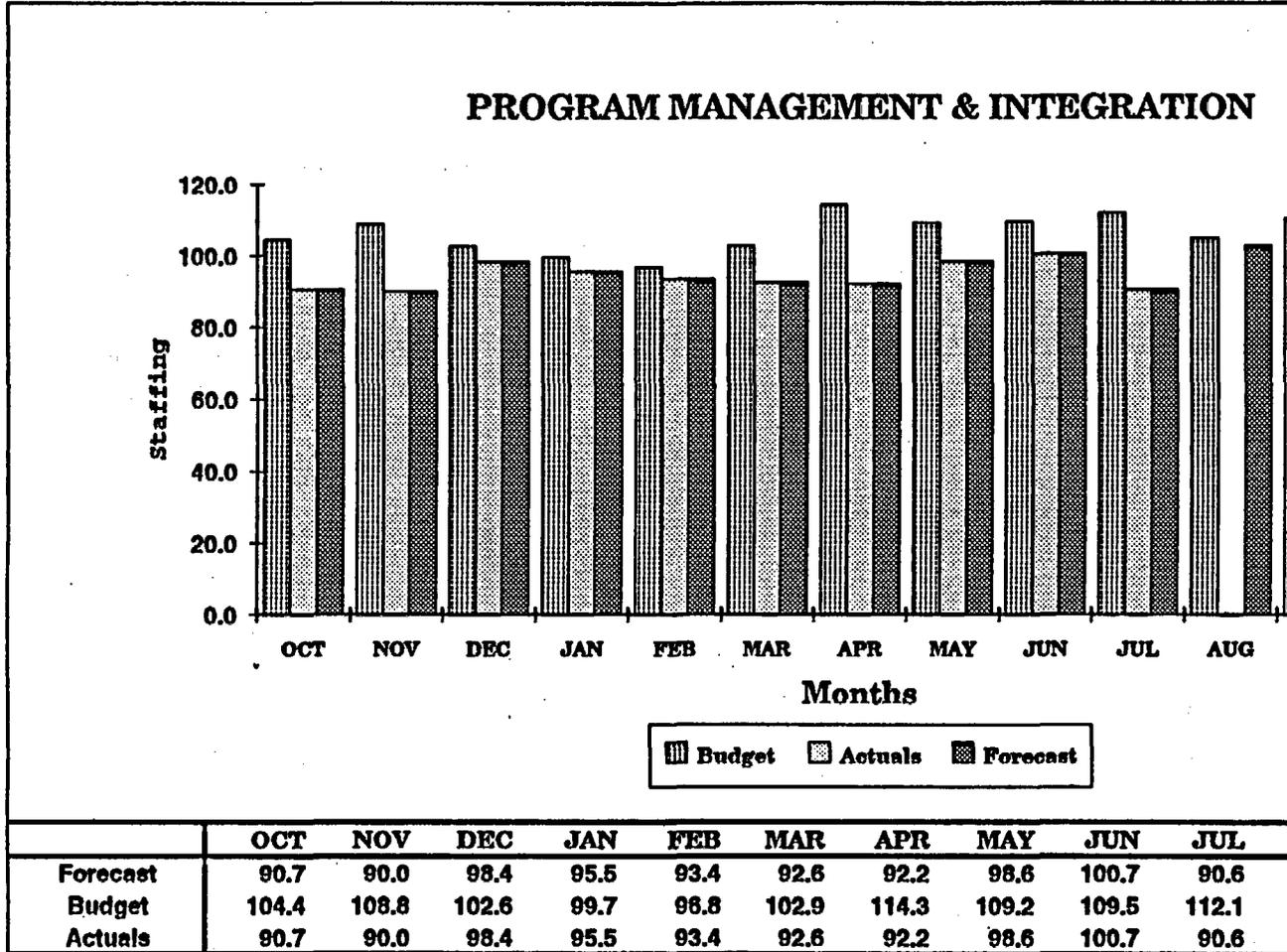
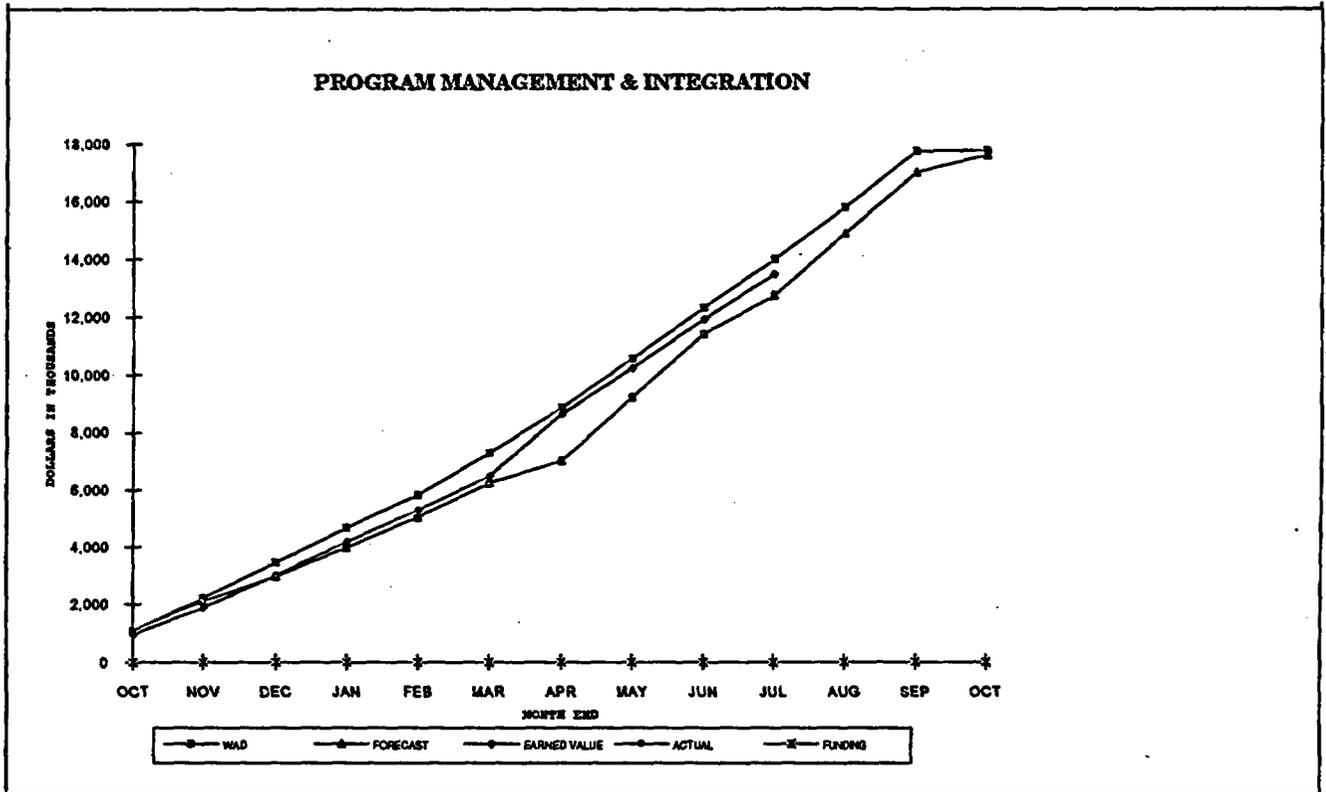


Figure 6. WAST Project Key Milestone Schedule (Continued)

FY95 KEY MILESTONE SCHEDULE				FY-1995							
ID	DESCRIPTION	BASELINE	FORECAST	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
3.3 WASTE ACCEPTANCE											
W000	ISSUE TAMPER-INDICATING DEVICE REPORT	12/20/94	12/20/94			▲					
000100	DRAFT SAFEGUARDS AND SECURITY PROGRAM PLAN	02/22/95	02/22/95				▼	◆			
W002	ISSUE SAFEGUARDS & SECURITY PROGRAM PLAN	03/23/95	02/27/95					▲	▲		
000110	WASTE ACCEPTANCE OPERATIONAL PLAN (WA-OP) (PEP C6C(1))	03/31/95	03/31/95							▼	
W004	ISSUE SAFEGUARDS & SECURITY STANDARD	04/20/95	04/20/95								▲
000120	FINAL MANAGEMENT PLAN - WASTE ACCEPTANCE CRITERIA	06/30/95	06/30/95								
000110	FINAL VERIFICATION PLAN (PEP C6C(2))	07/31/95	07/25/95								
W006	ISSUE VERIFICATION PLAN	07/31/95	07/31/95								
000100	DRAFT 1986 APRACR	08/20/95	08/20/95								
W008	SUBMIT RW-459 FORM REVISION TO OMB	08/20/95	08/20/95								

LEGEND: ☆ - LEVEL 0 R00 ◆ - LEVEL 1 R00 ▲ - LEVEL 2 R00
 ▼ - LEVEL 3 R00 ◇ - UNRECORDED



		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
MONTH	WAD	1,075	1,133	1,233	1,214	1,170	1,452	1,802	1,893	1,775	1,640	1,803	1,946	8
	FORECAST	1,091	1,005	861	1,010	1,060	1,215	775	2,202	2,216	1,312	2,140	2,105	601
	EARNED VALUE	947	919	1,133	1,163	1,116	1,220	2,159	1,577	1,705	1,524			
	MONTH ACTUAL	1,091	1,005	861	1,010	1,060	1,215	775	2,202	2,216	1,312			
	VAR/SCH	(126)	(214)	(100)	(51)	(54)	(232)	557	(118)	(70)	(116)			
	VAR/COST	(144)	(36)	272	153	58	5	1,384	(625)	(511)	212			
CUM	WAD	1,075	2,208	3,441	4,655	5,825	7,277	8,879	10,572	12,347	13,967	15,790	17,736	17,744
	FORECAST	1,091	2,096	2,957	3,967	5,027	6,242	7,017	9,219	11,435	12,747	14,887	16,992	17,593
	EARNED VALUE	947	1,866	2,999	4,162	5,278	6,498	8,657	10,234	11,939	13,463			
	ACTUAL	1,091	2,096	2,957	3,967	5,027	6,242	7,017	9,219	11,435	12,747			
	VAR/SCH	(126)	(342)	(442)	(493)	(547)	(779)	(222)	(338)	(408)	(524)			
	VAR/COST	(144)	(230)	42	195	251	258	1,840	1,015	504	718			
FUNDING	FYDS FUNDING	0	0	0	0	0	0	0	0	0	0	0	0	0
	PREV. FUNDED	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL FUNDING	0	0	0	0	0	0	0	0	0	0	0	0	0

Figure 9. Program Management and Integration Financial Status

4. Progr Support

4.2.6 Program Management and Integration Variances

- All variances are within tolerance.

**4.1 Program Quality
Assurance**

4.2.5 Program Control and Administration CWBS 9.3.5

MANAGERS: J. L. Stern/M. H. King

OBJECTIVE(S): Provide Program Control and Administrative support to OCRWM by implementing and maintaining a Program Control System (PCS) for the program and program support elements. Prepare Monthly Program Status Reports and Charts and bi-monthly Director's Program Reviews (DPRs). Develop the FY95 Total System Life-Cycle Cost (TSLCC) analysis; maintain the Program Cost and Schedule Baseline (PCSB) and WBS dictionaries; and publish weekly and bi-weekly reports from the Management Tracking System (MTS) and Operations Management Tracking System (OMTS) databases.

4.2.5.1 Progress During Report Period

- Established an initial basis for a proposed Cost and Schedule Estimating Requirements Document (CSERD) which would replace the OCRWM Guide and be an appendix to the proposed OCRWM Planning and Control System Description (PCSD). Also established the the "Project Level Appendix" would be a guidance document attached to the CSERD. The PC&S department will complete a basis for a preliminary draft of a CSERD. Gruber & Flannery will complete the first cut of the guidance document.
- Continued revising the Program WBS Dictionary Document in accordance with RW-1 direction: "The Program WBS Dictionary Document will ... be revised and submitted to the Program Baseline Change Control Board for approval." This effort will be consolidated under the BCP currently being prepared to include the 9-leg of the WBS in the Program Cost and Schedule Baseline.
- Prepared FY 1996 PPWS for QATSS, KENROB, and Weston Participants.

4.2.5.2 Issues and Concerns

- None.

4. PROGRAM SUPPORT

CONTRACT WORK BREAKDOWN STRUCTURE (CWBS) 9.0

4.1 PROGRAM QUALITY ASSURANCE CWBS 9.1

MANAGER: R. P. Ruth

OBJECTIVE(S): Establish a quality assurance program that meets Office of Civilian Radioactive Waste Management (OCRWM) Program Quality Assurance Requirements and Description (QARD) requirements and is maintained through surveillances and reviews of all Civilian Radioactive Waste Management System (CRWMS) M&O quality-affecting activities.

4.1.1 Progress During Report Period

Las Vegas

- The Quality Review Board (QRB) approved Quality Assurance Plan QAP-3-4, Revision 2, "Baseline Control" and continued review and comment resolution of the 7 series QAPs and the proposed cancellation of QAPs 3-6 and 3-13. The Nevada Quality Assurance (QA) Manager approved Nevada Line Procedure (NLP), NLP-3-10, Revision 5, "Preparation Of Field Changes To Engineering Drawings And Specifications;" NLP-3-25, Revision 1, "Configuration/Change Control" NLP-17-4, Revision 4; "Microfilming Inclusionary Records;" and NLP-SIII-4, Revision 0, "Scientific Investigation Control."
- Approved the following Nevada Work Instructions (NWI): NWI-DS-001Q "Field Logging, Handling, and Documenting Borehole Samples," NWI-SMF-001 "Removal of Whole and Other Specimens from Samples by the SMF for Shipment and Remnant Return," NWI-SMF-002, "Transport, Receipt, Admittance, and Processing of Borehole Samples for the SMF," NWI-SMF-003 "Examination of Borehole Samples Curated at the SMF," NWI-SMF-005, "Control of Measuring and Test Equipment," NWI-SMF-006 "Calibration of Temperature Recording Equipment," and NWI-SMF-007 "Balance Calibration."
- Interfaced with OCRWM QA auditors on audit YM-ARP-95-16 of Waste Package Development. Two deficiency reports and one problem report will be issued. No major concerns were expressed by OCRWM or the NRC during the course of the audit.
- Issued Surveillances 95-NSS-31 "Preparation of Implementing Line Procedures (ILPs)" 95-NSS-34, "Exploratory Studies Facility (ESF) Subsurface Drilling and Blasting Specification," and 95-NSS-38 "Tunnel Boring Machine Readiness Review."
- Conducted Interdiscipline Review of 18 Q drawings, 6 analyses, 1 specification, and 12 Determination of Importance Evaluations (DIEs). Also reviewed 13 Baseline Change Proposals (BCPs), 1 DIE - backcheck and QA concurrence, 7 analyses, 14 drawings, 9 Non-Conformance Reports (NCRs), 1 disposition concurrence, 1 disposition review, 1 validation, 2 Technical

4.2.4 International Waste Management Technology CWBS 9.3.3

MANAGER: F. Ridolphi

OBJECTIVE(S): Maintain an awareness of international activities relating to the disposal of spent fuel and high-level waste (HLW) in order to integrate information from foreign programs into the domestic program. Report on special issues regarding international program activities and provide specific recommendations.

4.2.4.1 Progress During the Reporting Period

- Supported analysis of Swedish Hard Rock Laboratory (HRL) data presented at the HLW Conference held in Las Vegas, April 30 - May 3, 1995, to document the up-to-date status of progress made in various experiments and the potential bearing on the Yucca Mountain project.
- Reviewed Canadian, British, Japanese, French, Swedish, and Swiss strategies for creating public awareness and gaining public acceptance of their radioactive waste management programs. Noted possible applicability to the Yucca Mountain program with special consideration given to public involvement and participation strategies in facility siting.
- Supported analysis of cooperative agreement activities with Canada, Sweden, and Switzerland, defining objectives, justifications, FY96 budget, agreement details, and effects of agreement terminations on the program. Reviewed budgetary aspects to define funding obligations under the cooperative agreements and determine task funding priorities.

4.2.4.2 Issues and Concerns

- None.

Document Reports, and 6 Q procedures. Provided QA approval for seven (non-Q) subsurface electrical and Integrated Data Control System (IDCS) interface drawings and approval for three (non-Q) surface electrical analyses, 2 non-Q specifications, and 4 non-Q drawings.

Vienna

- Presented the joint OCRWM/M&O presentation to the NRC on July 13, 1995. The presentation reviewed the oversight role of the Westinghouse Government and Environmental Services Company (GESCO) Quality Assurance Program and its interrelationship with the various sub-tier contractor QA programs in relation to the MPC contract. In addition, the presentation focused on OCRWM's and the M&O's oversight of these organizations to ensure compliance with the Multi-purpose Canister (MPC) contract. The NRC believes there is adequate oversight of the MPC contract.
- Issued Surveillances 95-VIS-28 "Application of Q Controls for Topical Reports," and 95-VIS-31 "Observation of GESCO's Audit of Energy Systems Business Unit (ESBU)."
- Provided a draft QA Task Report for the DOE Spent Nuclear Fuel Steering Group. Participated in a videoconference with the Steering Group for the DOE-owned Spent Nuclear Fuel (Idaho National Engineering Laboratory (INEL), Naval Reactors, DOE Radioactive waste (RW) and EM, LV).

4.1.2 Issues and Concerns

- None.

4.1.3 Variances

- The cumulative cost variance of \$385/12% is due to underruns in labor and associated travel and relocation as a result of the January transfer of the audit function to OCRWM, the deletion of MPC potential vendor reviews, and the departure of one individual without replacement. There are no program impacts and no corrective action is required.

4.2.3 Strategic Planning CWBS 9.3.2

MANAGER: F. Ridolphi

OBJECTIVE(S): Provide complete strategic and system analyses to DOE OCRWM and to the general manager of the M&O contract

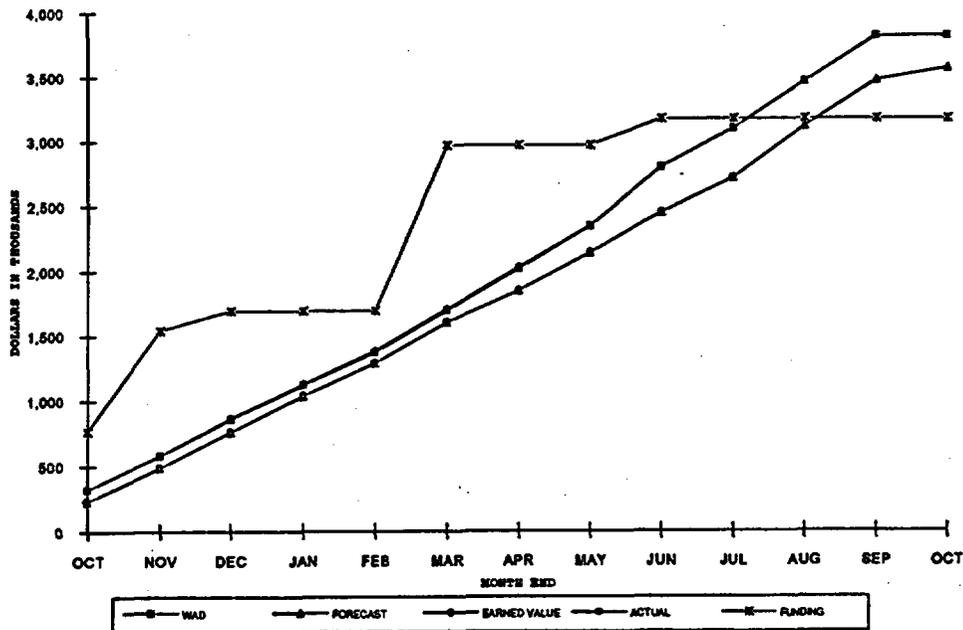
4.2.3.1 Progress During Report Period

- Compiled the M&O's portion of the Director's Resource Book (DRB) for RW-40. Provided a redline/strikeout version of the changes to the various counterparts in OWAST, resolved any differences, and made final changes for RW-40. The approved changes were provided electronically to Weston to update the DRB master copy.
- Provided to Weston a comprehensive summary of how a budget constrained to \$425 million would be applied to the Program if Interim Storage were directed by the Congress as part of Congressman Crapo's questions and answers resulting from the June 26 and 28, 1995, hearings. Categorized the costs into YMP, Interim Storage, and Other categories, and provided a short synopsis of the resultant activities.
- Compiled surface drilling activities at Yucca Mountain for RW-34. Researched the total number of feet drilled, the number of drill holes collaboration with the Headquarters' USGS representative and the number, type, and general specifications of the drill rigs in use by the projecting.
- Supported M&O WAST preparation activities for an options book providing a detailed analysis of the alternatives proposed by the various legislative proposals before Congress. The book provides a synopsis of each alternative, details the assumptions used in developing the alternatives, and provides the funding profiles and the detailed basis of estimates for each of the alternatives identified.

4.2.3.2 Issues and Concerns

- Uncertainties in program guidance for FY96 will cause a delay in development of the updated Program Plan. Developed a BCR that was approved by the M&O WOSM, coordinated with RW-34/35, and submitted to RW-30 for approval. Because revision of the Program Plan will be time-critical after receipt of guidance, careful planning between OCRWM and the M&O will be required.

CWBS 9.1 PROGRAM QUALITY ASSURANCE



		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
MONTH	WAD	323	254	282	258	253	322	325	324	452	300	358	352	0
	FORECAST	228	257	273	276	253	311	247	292	308	263	399	354	92
	EARNED VALUE	325	255	284	259	254	324	326	314	452	300			
	MONTH ACTUAL	228	257	273	276	253	311	247	292	308	263			
	VAR/SCH	2	1	2	1	1	2	1	(10)	0	0			
	VAR/COST	97	(2)	11	(17)	1	13	79	22	144	37			
CUM	WAD	323	577	859	1,117	1,370	1,692	2,017	2,341	2,793	3,093	3,451	3,803	3,803
	FORECAST	228	485	758	1,034	1,287	1,598	1,845	2,137	2,445	2,708	3,107	3,461	3,553
	EARNED VALUE	325	580	864	1,123	1,377	1,701	2,027	2,341	2,793	3,093			
	ACTUAL	228	485	758	1,034	1,287	1,598	1,845	2,137	2,445	2,708			
	VAR/SCH	2	3	5	6	7	9	10	0	0	0			
	VAR/COST	97	85	106	89	90	103	182	204	348	385			
FUNDING	FY95 FUNDING	768	1,540	1,540	1,540	1,540	2,815	2,815	2,815	3,015	3,015	3,015	3,015	3,015
	PREV. FUNDED	0	0	150	150	150	150	150	150	150	150	150	150	150
	TOTAL FUNDING	768	1,540	1,690	1,690	1,690	2,965	2,965	2,965	3,165	3,165	3,165	3,165	3,165

Figure 7. Program Quality Assurance Financial Status

- Evaluated the OCRWM licensing strategy and regulatory compliance program in a constrained budget and revised program approach concept.
- Briefed the Criticality Control Program Integration Group on the purpose and scope of the MPC Part 60 Design Consideration Report and the need for a criticality control section supporting the proposition that the MPC is an acceptable component of the waste package.

Programmatic Regulatory Integration Activities

- Provided the RW-40 Self-Assessment Implementation Plan to RW-46.
- Established a working group and developed a plan to identify and track emerging regulatory issues that could affect the program.

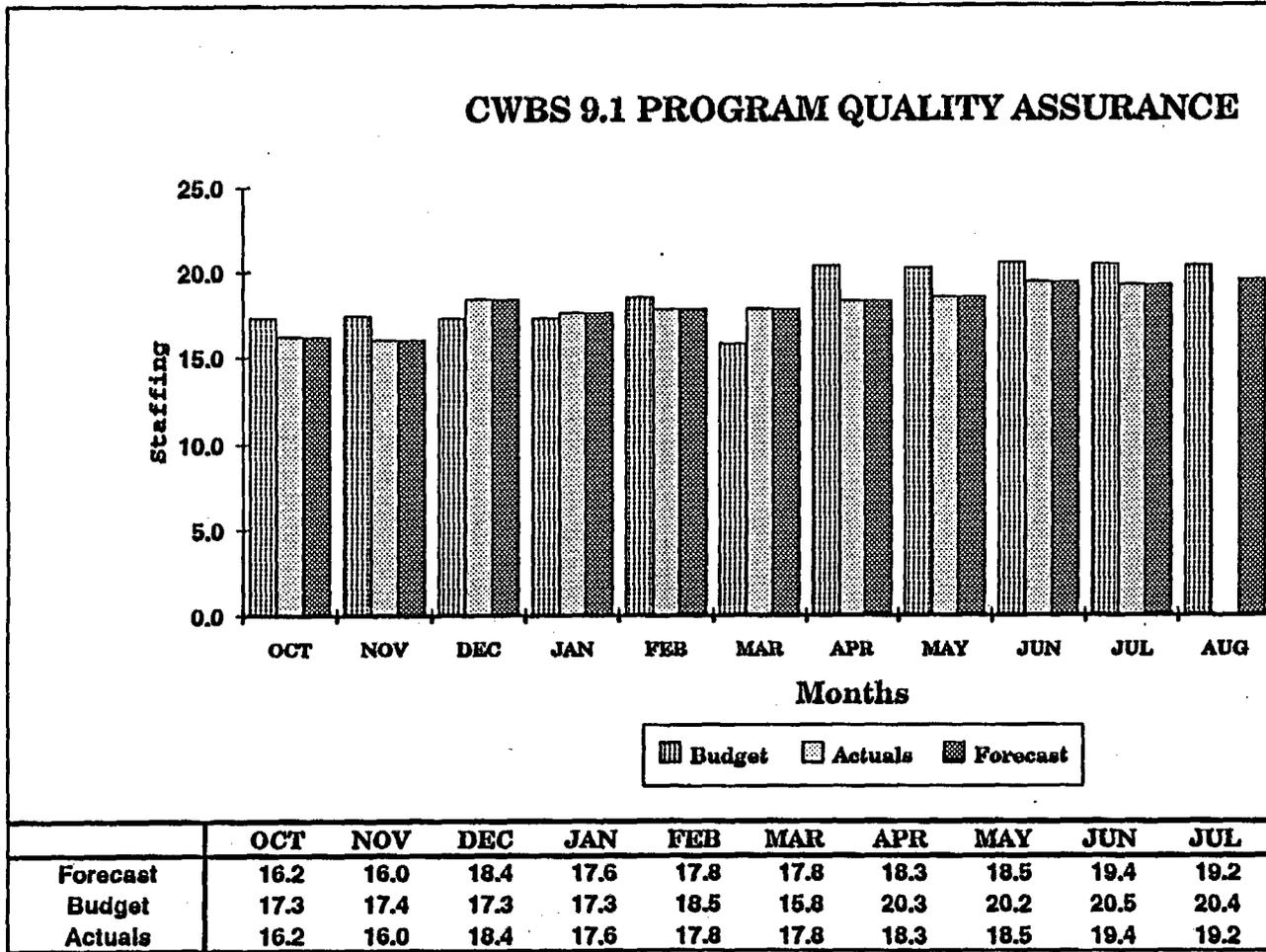
External Integration

- Presented two briefings at the LSS Advisory Review Panel Meeting of July 6-7, 1995: "Status Report on Phase 2 LSS Requirements" and "Snapshot of Congressional Actions re: Civilian Nuclear Waste," which addressed specific action items that arose from the LSS Advisory Review Panel.

4.2.2.2 Issues and Concerns

- Possible programmatic delays from development and implementation of a new radiological standard for Yucca Mountain. The effect of the standard on site suitability is uncertain.

Figure 8. Program Quality Assurance Staffing



4.2.2 Regulatory and Licensing CWBS 9.2.2

MANAGER: D. F. Fenster

OBJECTIVE(S): Coordinate and develop an integrated OCRWM programmatic approach and strategies for regulatory compliance and licensing issues. Coordinate and develop regulatory interpretation and guidance documents. Lead the National Environmental Protection Agency (NEPA) policy and compliance approach process. Serve as a point of contact on policy for environmental, safety and health compliance. Coordinate and facilitate NRC interactions.

4.2.2.1 Progress During Report Period

NEPA Compliance Officer Support

- Reviewed and commented on seven fact sheets prepared for distribution with the Repository EIS Notice of Intent.
- Reviewed the Affected Environment and Environmental Consequences chapters of the Preliminary Draft Nevada Test Site Environmental Impact Statement.
- Reviewed the Nevada Test Site Environmental Impact Statement Transportation Study.
- Submitted the Monthly NEPA Report, June 1995.
- Submitted the Regulatory Compliance and Permit Status Report for Site Characterization for the Period April-June 1995.

Working Group and Committee Support

- Attended the July 11, 1995, Waste Reduction Steering Committee meeting in support of RW-36.

Regulatory Compliance and Guidance Support

- Participated in the preparation of the DOE SNF Working Group Program Task Team Progress Report by providing input regarding RCRA and NEPA issues.
- Submitted the Draft OCRWM ES&H Management Plan.

Licensing and Regulatory Program Support

- Established an administrative system to track and report periodically to RW-2 on submittals to the NRC by the Mescaleros or industry in the areas of ISFSI, storage, and transportation casks.

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- Continued coordinating the QAP-3-1 technical review of the DOE SNF Requirements Report initiated on June 7, 1995. Received all Document Review Records and comments from the reviewers (last set was received on Wednesday, July 26, 1995; comment due date is July 27, 1995). Due to this delay, the planned RW-30 approval date of July 21, 1995, will need to be revised based on the EM comments. Projected completion date is August 21, 1995.

4.2.1.2 Issues and Concerns

- None.

4.2 PROGRAM MANAGEMENT AND INTEGRATION

CWBS 9.2.1, 9.2.2, 9.3.2, 9.3.3, 9.3.5

4.2.1 Systems Integration

MANAGER: J. J. Miller

OBJECTIVE(S): Develop management system documentation, develop automated system for the management of system requirements, integrate engineering specialties, perform system safety and risk assessments, and establish technical performance measurement system and conducts evaluation. Identify systems analysis requirements; develop, integrate, and allocate system requirements; develop program test and evaluation program; maintain the system technical baseline; and verify the adequacy of designs and construction and compliance with system requirements.

4.2.1.1 Progress During Report Period

System Planning and Integration

- Completed and delivered Revision 4 of the Systems Engineering Management Plan (SEMP) to OCRWM for Program Baseline Change Control Board (PBCCB) approval. This revision responds to System Engineering action team issues. It adds expectations levied on the Projects: for specific development phases; decisions; guidance for technical reviews; Integrated Logistics Support Plans; Reliability, Availability and Maintainability; and System Safety.
- Completed the CRWMS Concept of Operations draft, which is to be delivered by August 4, 1995. Together with the Conceptual System Description, this document provides the Total System Description identified in the Program Plan and the framework for development of more detailed concepts, processes, and procedures. It supports the identification of previously unidentified operational requirements. The operational requirements working group uses a preliminary draft of this document.
- Received and resolved PBCCB comments on the Program Test and Evaluation Master Plan (TEMP) and completed the required signature approvals on the impact analysis. Formal Baseline Change Control Board (BCCB) approval will incorporate the document into the official OCRWM document hierarchy and provide a common basis for program test identification, planning, execution, and reporting.
- The Criticality Control Program Integration Group completed and delivered Revision 0 of a Program Criticality Control Strategy. This led to a formal management decision resolving the M&O approach to closing issues relating to Part 60 compatible neutron absorber host materials for the MPC. Generated a working draft of an Implementation Plan for task team review and comment.
- Assembled program-wide waste isolation inputs into eight focused issue papers and distributed by the Las Vegas licensing organization for comment. Began work on consolidating these papers into a single Waste Isolation Strategy Paper for consideration and review in mid-August.

- Incorporated final comments on the Program Interface Control Working Group (ICWG) into the ICWG Charter, which was forwarded to RW-30 for signature. Revised the Interface Control Document (ICD) Technical Document Preparation Plan (TDPP) to incorporate the interface management process requirements defined in the final charter approved by the ICWG membership. Development work on the MGDS-Trans and MGDS-WA Interface Control Documents (ICDs) continued in anticipation of approval of the charter and the revised TDPP.

System Requirements and Design

- Organized and participated in the Program Task Team DOE Spent Nuclear Fuel Steering Group videoconference on July 5, 1995. Participating sites included Vienna, Las Vegas, and DOE Idaho. Developed resolution strategies for Data, Resource Conservation and Recovery Act (RCRA), National Environmental Protection Act (NEPA), Quality Assurance (QA), and Schedule Integration issues. Delegated task assignments to develop the Task Team Report due to the Steering Group in August 1995.
- Submitted the OCRWM Procedure for Document Identifiers, Revision 2, to RW-37 for final RW review.
- Produced at RW-37 a Lotus Notes database template to provide RW-37 a means to view and track issues that have been identified in the CRWMS Requirements Document (CRD) and Systems Requirements Documents (SRDs). This database provides any Lotus Notes user ready access to the status of all CRD and SRD issues.
- Prepared and delivered the final CRD Revision 02B concurrence review draft, including both the CRD and Requirements Backup Sheets, to the reviewers on July 14, 1995. This draft represents the resolution of almost 600 comments and is the final quality assurance step before submission for approval.
- Resolved comments against the Level II Functional Requirements Document (FRD), and completed Level 2 draft Software Requirements Specification (SRS) for the OCRWM-wide Configuration Information System (CIS). These two documents will serve as the basis for the development of the Level 2 CIS capability, and for verifying that the system developed meets the established requirements. Successfully completed a design review of the Level 2 CIS. This review validated that the FRD and CIS correctly reflect the user requirements.
- Completed the Verification Test Plan and User Manual for ORIGEN R and revised and submitted the Life-Cycle Plan for QA review. Made significant progress toward the baselining of QA qualified Origen R software.
- Modified the Action Item Tracking System as a continuous process improvement step in the PBCCB process. As a result, Board Members are electronically notified of PBCCB Directive action items that have been assigned to them. Members can then enter expected completion dates into the database, thereby providing an effective means for tracking closure of the action items.