

EXECUTIVE SUMMARY

Introduction

KPMG Peat Marwick LLP has performed certain agreed-upon procedures relating to the Boulder Canyon Project (Project) books and records for the period June 1, 1987 through September 30, 1994. The procedures were performed in accordance with generally accepted government auditing standards and in accordance with a contract issued June 6, 1995, by the Colorado River Commission of Nevada, acting on its own behalf, on behalf of the State of Nevada, and on behalf of the other 14 entities contracting for Boulder Canyon Project power in the states of Arizona, California and Nevada.

This Executive Summary provides background information on the Boulder Canyon Project, describes the engagement scope and methodology, and briefly summarizes our findings and recommendations. Following the Executive Summary are detailed sections on each of the 16 Tasks we were asked to perform. Appendix A of this report includes key information and data, and Appendix B includes the workpapers. These workpapers constitute the reports, studies, research documents, and data received or obtained by us during the engagement, and according to our contract they become the property of the 15 Boulder Canyon Project contractors.

Background

Authorizing Legislation

The Boulder Canyon Project Act (43 U.S.C. 617, *et seq.*), enacted by the U.S. Congress in 1928 (The 1928 Act), authorized the Secretary of the Interior to spend up to \$165 million to construct the Boulder Canyon Project, consisting of Hoover Dam and related works on the Colorado River. The Dam was built for the expressed purposes of (1) controlling floods, (2) improving navigation of the Colorado River and its tributaries, (3) regulating the Colorado River, while providing storage and delivery of the stored water for reclamation of public lands, and (4) generating electrical energy as a means of making the Boulder Canyon Project a self-supporting and financially solvent undertaking. Construction of Hoover Dam, formerly known as Boulder Dam, began in 1930 and was completed in 1935. The Hoover Dam powerplant began generating electricity in 1937 for sale to utilities and other power contractors in the states of Arizona, California, and Nevada.

The 1928 Act generally required the Project's power users to repay Federal advances with interest within 50 years of the Project's completion. The 1928 Act was modified in 1940 by the Boulder Canyon Project Adjustment Act (43 U.S.C. 618, *et seq.*), which authorized the Secretary of the Interior to promulgate and to put into effect power rates based upon a repayment period from June 1, 1937, to May 31, 1987; to reduce the interest rate from 4 percent to 3 percent per annum on unpaid Treasury advances; to require annual payments to the states of Arizona and Nevada in

lieu of taxes levied; and to defer without interest until June 1, 1987, the repayment of the \$25 million allocated to flood control.

In August 1984 the Congress passed the Hoover Power Plant Act (43 U.S.C. 619, et seq.) (The 1984 Act) which authorized an uprating program (to replace aging electrical generation equipment and increase the capacity of existing generating and associated electrical equipment), construction of new visitor facilities, and construction of a Colorado River bridge crossing. The 1984 Act authorized up to \$77 million (at October 1983 price levels) for the uprating and visitor facilities programs, but did not authorize funding for the bridge. The 1984 Act required the Project's power users to repay appropriated funds with interest over a 50-year period, and it resolved legal disputes over how electrical generation would be allocated and sold after 1987 by requiring the Secretary of Energy to (1) offer 30-year renewal contracts to each existing power contractor; (2) offer new 30-year contracts for the additional power resulting from the uprating program to purchasers in Arizona, California, and Nevada; and (3) continue the practice of setting power rates for these contractors based on the cost of production.

The 1984 Act further required the uprating program to be funded initially by advances to the Bureau of Reclamation from certain Boulder Canyon Project contractors. Funds advanced would be returned to these contractors through credits on their monthly power bills. The 1984 Act also required that an additional charge of 4.5 mills per kWh be assessed on energy sales to Arizona and an additional charge of 2.5 mills per kWh be assessed on energy sales to California and Nevada; all revenue resulting from the additional charge (surcharge) was to be transferred to the Lower Colorado River Basin Development Fund.

Description of Hoover Dam

Hoover Dam is the highest and third largest concrete dam in the United States. The Dam, powerplant, and high-voltage switchyards are located in the Black Canyon of the Colorado River along the Arizona-Nevada border. Lake Mead, formed behind Hoover Dam, is the nation's largest manmade reservoir and can hold a two-year supply of the average flow of the Colorado River with its storage capacity of 27.38 million acre-feet. Waters impounded in Lake Mead are released when needed for use by downstream water users and for flood control. The Dam provides for the delivery of stored water for irrigation and other beneficial consumptive uses, as well as for the generation of electrical energy. The Hoover Dam powerplant has 19 generating units, an installed capacity of 2,074,000 kW (kilowatts), and annual average power generation of 4.5 billion kWh (kilowatt-hours).

Hoover Dam is about 36 miles southeast of Las Vegas, Nevada, and the road atop the Dam is part of a well-traveled highway (U.S. 93). The Dam attracts over 700,000 visitors annually and has a new visitors' center and parking garage which were substantially completed and opened to the public in June 1995.

Hoover Dam is operated by the Bureau of Reclamation (Reclamation), U.S. Department of Interior.¹ In Fiscal Year 1994, Reclamation's staffing for the Boulder Canyon Project consisted of 259 personnel in such functions as administration, engineering, communications and control, maintenance, operations, and construction. Reclamation is responsible for the operation, maintenance, replacement, and repayment of the Dam, power plant, and related transmission system.

Power Marketing and Transmission

The Western Area Power Administration (Western), Phoenix Area Office, U.S. Department of Energy, is responsible for marketing and transmitting Boulder Canyon Project power.² Western has a contract with each of the Project's 15 power users through September 30, 2017, and the contracts provide for such items as: (1) the electric service to be furnished; (2) billings, payment, and schedule of rates; (3) determination of revenue requirements, repayment periods, and rates; (4) resale of electric energy; (5) conservation and renewable energy program; (6) delivery conditions; and (7) contract capacity and energy entitlements.

The 1984 Act sets forth the amount of power sold to customers after June 1, 1987; and Western's 1986 General Regulations provide for a Base Charge for Project power, made up of a firm energy component and a contingent capacity component. The energy component is expressed in mills per kWh (e.g., 6.31 mills/kWh in Fiscal Year 1994) and is applied to each kWh made available to each contractor. The capacity component is expressed as a dollar per kW per year charge and is billed on a dollar per kW per month basis (e.g., \$1.07/kWh in Fiscal Year 1994). The capacity component is applied each billing period to each kW of rated output to which each contractor is entitled by contract. The billing method, beginning in FY 1996, has been changed and is based on forecasted rates, followed by year-end adjustments to actual and resulting debits or credits to Contractors as appropriate.

Customers are entitled to receive approximately 4.527 billion kWh of firm energy each year. If generation at Hoover Powerplant is less than that, Western can purchase energy to make up the shortfall at the request of individual customers on a pass-through cost basis.

¹ See Appendix A-ES-1 for map of Reclamation's Regional Organization.

² See Appendix A-ES-2 for map of Powerplants and Western's Marketing Area.

Power Customers

Boulder Canyon Project power is sold to 15 customers³ which include:

- 10 municipalities in California
(Cities of Anaheim, Azusa, Banning, Burbank, Colton, Glendale, Los Angeles, Pasadena, Riverside, and Vernon.)
- 1 municipality in Nevada
(City of Boulder City)
- 1 state agency in Arizona
(Arizona Power Authority)
- 1 state agency in Nevada
(Colorado River Commission)
- 1 irrigation district in southern California
(Metropolitan Water District of Southern California)
- 1 investor-owned utility in southern California
(Southern California Edison Company)

The 11 municipalities accounted for 23.2 percent of energy sales in Fiscal Year 1994, and the other 4 customers accounted for 76.8 percent of the sales. About 55 percent of the energy sales were made to the customers in California.

Project Implementation Agreement

Reclamation, Western, and the 15 Contractors entered into a Project Implementation Agreement (Implementation Agreement, or Agreement), effective February 17, 1995, to resolve 11 controversial issues: (1) replacements, (2) Visitor Facilities, (3) amending 10 CFR 904, (4) multi-project costs, (5) E&OC and Coordinating Committee, (6) billing and payment, (7) working capital, (8) audits, (9) principal payments, (10) annual rate adjustments, and (11) uprating credits.

The Agreement recognized that Reclamation and Western are required to and desire to manage the Project's plans, programs, costs, and revenues in a manner that results in the power output of the Project being delivered to the Contractors at the lowest possible cost consistent with sound business principles. The parties to the Agreement also desired to establish a forum for the exchange of information and to share views regarding Contract administration - including the criteria, policies, and procedures by which the Project will be operated, maintained and kept in good repair.

³ See Appendix A-ES-3 for map of Power Sales Customers.

Financial Data

Key financial data for the Boulder Canyon Project includes the following:⁴

	As of September 30, 1994 (\$ in thousands)				Fiscal Year 1994 (\$ in thousands)		
	<u>Western</u>	<u>Reclamation</u>	<u>Total</u>		<u>Western</u>	<u>Reclamation</u>	<u>Total</u>
Assets	<u>\$ 15,805</u>	<u>\$ 358,337</u>	<u>\$ 374,142</u>	Operating Revenues	\$ 277	\$ 62,339	\$ 62,616
Federal Investment	5,568	201,409	206,977	Operating Expenses	<u>6,255</u>	<u>35,456</u>	<u>41,711</u>
Liabilities	<u>10,237</u>	<u>156,928</u>	<u>167,165</u>	Net Operating Revenue	(5,978)	26,883	20,905
Total Fed Inv/Liab.	<u>\$ 15,805</u>	<u>\$ 358,337</u>	<u>\$ 374,142</u>	Net Interest Expense	<u>746</u>	<u>14,128</u>	<u>14,874</u>
				Net Revenues	(6,724)	12,755	6,031
				Net Revenues, Begin Year	<u>(27,503)</u>	<u>46,538</u>	<u>19,035</u>
				Accumulated Net Revenues, Balance, End of Year	<u>\$(34,227)</u>	<u>\$ 59,293</u>	<u>\$ 25,066</u>

The above financial data shows that at the end of FY 1994 Boulder Canyon Project assets totaled \$374 million. These assets consisted of such items as the dam, dam appurtenances, generating machinery, equipment, cash and accounts receivable. Federal Investment denotes \$207 million of appropriated funds that have been invested in the Project. Liabilities of \$167 million consist largely of amounts owed to the uprating Contractors for funds advanced to the Project.

Operating Revenues of \$63 million in FY 1994 consisted primarily of sales of electric power to the 15 power customers. Expenses of operating the dam and transmitting the power totaled \$42 million. The \$6 million in operating expenses for Western was about \$3 million higher than normal due to power that had to be purchased from alternate sources during the year.

The negative net revenues for Western during FY 1994 represent expenses in excess of revenue. Western has only minor amounts of revenue (e.g., \$277,000 in FY 1994). Revenue from the 15 power Contractors is recorded on Reclamation's records. The Boulder Canyon Project's total net revenue in FY 1994 was \$6 million (i.e., revenue in excess of expenses).

Scope and Methodology

The engagement included identifying, documenting, and analyzing certain information in accordance with 16 tasks:

1. Internal Fiscal Controls
2. Accuracy of Source Documents
3. Flow of Information Through Financial Management Systems
4. Quality Review of Project Financial Statements
5. Amounts of Operating and Working Capital Funds

⁴ See Appendix A-ES-4 for Financial Statements, Fiscal Years 1987-1994.

6. Original Imbalance Calculation
7. Amounts and Types of Costs Charged to the Project
8. Direct and Indirect Charges to Visitors Facilities
9. Status of Construction Claims
10. Internal Fiscal Controls Related to Visitors Facilities
11. Actual Expenditures and Encumbrances Relating to Visitors Facilities Remaining to be Paid
12. Power Repayment Spreadsheet Study - Cost and Revenue Data
13. Obligated Fund Balances
14. Overhead and Other Indirect Charges Allocated to the Project
15. Accounting for Replacements
16. Multi-Project Costs Allocated to the Project

The purpose of evaluating these issues was to assure that costs charged to the Project were reasonable, prudent, accurate, consistent, properly controlled, related to the Project and beneficial to the Project; to provide a better understanding for the Contractors of the financial management processes; to provide a basis for improvement of those processes where indicated; and to provide the Contractors with information that will assist them in the activities of the Engineering and Operating Committee and the ten-year planning process.

The period covered by the engagement was primarily June 1, 1987, through September 30, 1994. We also evaluated certain documentation after September 30, 1994, to help assure that we: (1) considered subsequent material relevant to the 16 task areas; and (2) included subsequent events and current status in our analyses when appropriate.

Field work was accomplished at the following locations during June 5, 1995 to December 1, 1995:

- o Department of Interior, Bureau of Reclamation
 - Hoover Dam
 - Boulder City, Nevada (Lower Colorado Region)
 - Denver, Colorado
- o Department of Energy, Western Area Power Administration
 - Phoenix, Arizona (Area Office)
 - Golden, Colorado (Headquarters)

For each of the 16 tasks as considered appropriate, we interviewed applicable personnel; obtained relevant criteria, administrative reports, cost reports, audit reports, contracts, financial statements, committee meeting minutes, budgets, and other documentation; and performed appropriate analyses consistent with the Task objectives. We interviewed approximately 85 personnel,⁵ obtained and reviewed over 360 background documents,⁶ and reviewed over 380 financial

⁵ See Appendix A-ES-5 for a list of personnel contacted during the engagement.

⁶ See Appendix A-ES-6 for a list of documents obtained during the engagement.

transaction documents. Certain task objectives were common to multiple tasks. In performing testwork for each respective task, we considered common concerns, objectives and potential impact to other tasks as considered appropriate.

The scope of the agreed-upon procedures was partially impaired due to two conditions. First, we were unable to readily gain access to the Department of Interior Office of Inspector General working papers concerning their prior audit of the visitor facilities. The availability of those working papers may have proved useful in the planning phase of the engagement. Certain procedures may have been eliminated or modified. Second, certain “earlier year” historical records and supporting documentation for transactions were not readily accessible for evaluation. This was primarily due to records retention criteria, original record storage policies, and reports and records copied on microfiche. These factors caused the data extraction process to be more difficult and time consuming. Although these conditions resulted in delays and some inefficiencies, we were able to perform alternative procedures to mitigate the limitations in meeting the objectives.

Findings and Recommendations

Overall Summary

The execution of the Implementation Agreement during the past year was a significant accomplishment and appears to be an effective blueprint for determining how the Project will be maintained and managed in the future. As a result of this Agreement, the Contractors have begun to actively participate in several committees with Reclamation and Western in an effort to control costs and to ensure that the Dam and related power facilities are maintained in good operating condition. The committee activity seems to be functioning in a positive manner and providing a means for achieving efficiency and economy of Boulder Canyon Project costs. Although the committee structure has only been formally implemented during the past year, its usefulness and effectiveness are already evident. Both Reclamation and Western appear to be responding to the Contractors’ concerns and suggestions in a positive and cooperative manner.

Testwork performed in the 16 task areas included consideration of much of the subject matter in the Implementation Agreement. We found that certain procedures in the 16 areas could be improved, and we have made recommendations where appropriate. Following is a summary of our findings and recommendations in each of the 16 tasks we were asked to perform.

Task 1 - Internal Fiscal Control

We read authorizing legislation for the Boulder Canyon Project, evaluated and documented our understanding of internal fiscal controls at Reclamation and Western’s Phoenix Area Office, read Office of Inspector General audit reports that pertain to internal fiscal controls, and considered the committee structure established by the Implementation Agreement for oversight and control of the Project.

There are procedures in place for documentation, approvals, reporting, accounting systems, purchasing, work orders, budgeting, cost accumulation and cost allocation. The committee structure, as established by the Implementation Agreement, represents an effective internal fiscal control by providing oversight to virtually every fiscal and operational element of the Boulder Canyon Project. Although the committee structure has only been formally implemented during the past year, its usefulness and effectiveness are already evident. The committees have met periodically, reviewed costs and other data, and have provided their opinions, suggestions, and recommendations which have been acted upon by Reclamation and Western. The three Office of Inspector General audit reports we read provided recommendations for improvement of internal fiscal controls, and the recommendations have been implemented.

Although not considered material weaknesses, we found certain areas where improvement could be beneficial. We recommend that Reclamation: (a) document local policies and procedures in writing, especially in the budget and accounting areas where knowledge of specific procedures in some cases is limited to single individuals, and (b) update organizational charts. We recommend that Western: (c) revise current budget outputs for consistency of form and content, (d) consider automating and linking the Management Improvement Team (MIT) spreadsheet with the Financial Management System (FMS) budget process, (e) prepare updated written policies and procedures for the budget process, and (f) provide adequate training for non-budget personnel and assure that such personnel are qualified and have reasonable time and resources to perform the necessary tasks relating to department budgets.

Task 2 - Accuracy of Source Documents

We determined the location of original source documents; obtained detailed cost reports; identified work orders, cost authorities, and object codes that pertain to the Project; selected samples of transactions; and reviewed supporting documentation for 203 financial transactions. At Reclamation we reviewed 103 transactions (23 construction contracts, 25 payroll, 30 travel, and 25 other purchases). At Western (Phoenix Area Office) we reviewed 100 transactions of 21 different types of costs, such as payroll, vehicle rental, and power purchased for resale. We found no material exceptions in the sample items. However, at Reclamation we were unable to locate some of the items purchased, and three transactions did not have required supporting documents for competitive bids or sole source justifications. Western was unable to provide supporting documentation for eight transactions, which was apparently caused by a lack of control over records stored in archives.

We recommend that Reclamation: (a) consider reviewing their property accountability and locator procedures to ensure that property, such as computers in particular, can be readily located, and (b) consider using a checklist to ensure that all required documents are on file for completed transactions. We recommend that Western: (c) improve their procedures for storing records in archives to ensure that records are available for required retention periods and are not destroyed prematurely.

Task 3 - Flow of Information Through Financial Management Systems

There are several systems and sources where financial and operating information reside, including the Federal Financial System for Reclamation, the Financial Management System for Western, and other systems/sources. There is a significant number of reports generated by the systems, and we compiled a list of such reports - in addition to obtaining lists of reports in some cases from Reclamation and Western. We obtained or prepared flowcharts on the information, transactions, and processes associated with these systems for budgeting, procurement, cost accumulation and allocation, accounts payable, and work orders. We provided flowcharts of indirect costs in Tasks 8 and 14 and a flowchart of the processing and review of obligated fund balances in Task 13.

We found that information flows to the Project Contractors primarily through various committees, the Engineering and Operating Committee (E&OC) Booklet, the Ten-Year Operating Plan (Plan), and through individual requests from the Contractors to Reclamation and Western. The Plan is probably the best single source of total accumulated information pertaining to the Project, and we recommend consideration of the following suggestions for improvement of the Plan: (a) combine the E&OC Booklet and the Plan into a single document - i.e., the Ten-Year Operating Plan, (b) include additional information on the Plan documents, such as source of the data, how the data was compiled, and explanations of what the data means, (c) include both Reclamation and Western data, and clarify that the Plan applies to the entire Boulder Canyon Project, (d) clarify what ten-year period is represented by the Plan, (e) include financial performance indicators and ratios, benchmarking data, and trend analyses, (f) include summaries in front of each section, and include in the Executive Summary a ten-year vision, mission statement, Boulder Canyon's role/position in its industry, goals, plans for meeting the goals, impediments to meeting the goals, mitigating circumstances for impediments, and action steps, and (g) provide complete justifications for planned budgets, including the rationale and support for each planned expenditure (i.e., similar to a zero-based budgeting process).

Reclamation and Western personnel appear committed to fully comply with the Implementation Agreement and to be responsive to information requests. However, both organizations are experiencing reorganization and staffing limitations. This heightens the need for information to flow to the Contractors as efficiently as possible.

Task 4 - Project Financial Statements

We submitted the 1993-1994 financial statements of the Project to a quality review by a KPMG partner who is a utility industry specialist and who did not participate in the audit of the Project's financial statements. We also verified that significant account balances agreed with supporting subsidiary ledgers for Fiscal Years 1988-1992. The quality reviewer of the 1993-1994 statements stated that there was no indication that the financial statements were not in compliance with industry standards or trends, although observations were offered by the reviewer to enhance future financial statement disclosures concerning operating revenues, income transfers, statements

of cash flow, deferred debits, and power sales contracts. In comparing significant account balances to subsidiary records from the FY 1988-1992 financial statements, we found no significant exceptions, and no further testwork was deemed necessary for FY 1987. (See Task 7 for our evaluation of financial information for consistency between years.)

We recommend consideration of the following suggestions in presenting future financial statements: (a) separate capacity charges from other income by presenting the charges as a separate line item component of gross operating revenue, (b) provide footnote disclosure of the nature and purpose of net income transfers, (c) provide footnote disclosures for such items as "Write Off Purchased Power Settlement" and "Replacements Previously Capitalized" (as to what the items represent and the related impact on the Project and its rates), (d) describe the nature of deferred debits and any exposure to full recovery of these assets that may exist, and (e) provide footnote disclosures about the nature and terms of the power sales contracts.

Task 5 - Operating and Working Capital Funds

We obtained an understanding of how the operating amount was determined, independently calculated the operating amount and working capital fund balances, compared our calculation to Reclamation's general ledger, and determined the portion of the operating amount advanced to Reclamation from the Contractors. We determined the operating amount to be \$17,052,740 as of September 30, 1994, after reconciling adjustments are made. Reclamation has been unable to reconcile their records to the Power Repayment Spreadsheet Study (PRSS) for a number of years, and both Reclamation and Western agree that the historical differences are appropriate adjustments to be made (i.e., a net reduction of \$573,396 in the operating amount). We also found that Reclamation considers the working capital amount of \$3 million to be excessive, based on the revised billing method for energy and capacity. (See Task 12 for further discussion of operating and working capital funds.)

We recommend that Reclamation and Western: (a) make appropriate PRSS and general ledger adjustments for a net reduction of \$573,396 in the operating amount; in conjunction with these adjustments, the difference in billing and collection revenue between the PRSS and Western financial records for the two month time period (August and September 1994) should be resolved and adjusted as appropriate, and (b) reduce the working capital amount, as recommended by Reclamation, from \$3 million to \$500,000 in FY 1997, unless otherwise justified by a cash flow analysis.

Task 6 - Original Imbalance

The original imbalance is defined as the dollar amount by which cumulative capacity payments exceed cumulative energy payments for power delivered from the Boulder Canyon Project from June 1, 1987, through September 30, 1995. Department of Energy regulations (10 CFR 904.7) provide that capacity revenue and energy revenue shall each represent 50 percent of the estimated average annual revenue requirements.

We compared the original imbalance data in the PRSS (\$12,062,575) with data from the power billings for Fiscal Years 1987-1994 and found a difference of \$311,252, resulting in a corrected original imbalance of \$11,751,323. Western reviewed our report, recalculated their amounts, and identified a difference of \$1,036,842 and a corrected original imbalance of \$11,025,733. Western needs to provide support for its calculations to, and obtain concurrence from, each of the 15 Contractors as to the accuracy of the balance.

The differences in the PRSS data and the power billings data were attributed to input errors in calculating the PRSS data. The original imbalance was caused by past billing practices, which are being changed beginning in FY 1996 in accordance with procedures required per the Implementation Agreement. The new procedures are expected to prevent recurrence of imbalances in the future. The original imbalance will be reduced each Fiscal Year, from FY 1996 through FY 2002. Therefore, by FY 2003 the cumulative capacity revenue and cumulative energy revenue will be in balance.

We recommend that Western: (a) provide support for its calculations of the original imbalance to, and obtain concurrence from, each of the 15 Contractors as to the accuracy of the balance, taking into consideration the applicability of historical loss settlements and unloaded synchronized losses when calculating energy revenue, (b) adjust the FY 1996 Ratebase PRSS for Capacity Dollars and Energy Dollars for Fiscal Years 1989 through 1993 in the amounts derived and agreed to in Recommendation "a" above, and (c) adjust the FY 1996 Ratebase PRSS for Capacity Dollars and Energy Dollars for FY 1995 actual data, in lieu of the budgeted data in the current calculation, in order to determine the actual original imbalance.

Task 7 - Amounts and Types of Costs Charged to the Project

We analyzed costs incurred by Reclamation and Western for the periods ended September 30, 1987-1994; compared costs on a year-to-year basis; and identified unusual fluctuations. We also obtained the amount of unpaid plant balances, verified applicable rates of interest in authorizing legislation, and reviewed the amount of interest accumulated in the Power Repayment Spreadsheet Studies (PRSS).

Reclamation incurred costs of \$182,592,787 during FY 1987-1994 for Operation and Maintenance (O&M), Interest, Replacements, and Visitor Facilities. Western incurred O&M costs of \$12,361,917 during the same period. We were able to identify reasons for many of the year-to-year cost fluctuations; however, neither Reclamation nor Western maintains such information in a readily available and accessible format. We found no material exceptions in our review of unpaid plant balances and interest charges.

We recommend that Reclamation and Western, in the future, routinely perform at the end of each fiscal year a documented fluctuation analysis of costs, identify reasons for significant changes between years, and present the analysis to the Budget Review Subcommittee for review and consideration.

Task 8 - Direct and Indirect Charges to Visitors Facilities

We identified 13 cost authority codes established by Reclamation to account for expenditures for the visitor facilities, evaluated procedures and controls to capture costs, identified nine procurement contracts related to construction of the visitor facilities with \$79 million in costs through September 30, 1995, sampled 50 items totaling \$19.5 million from those contracts, and evaluated indirect costs pertaining to the visitor facilities.

We found that contract costs sampled were supported and appeared to be properly chargeable to the visitor facilities. We evaluated procedures and controls for capturing costs in Tasks 1, 2, 3, 7, 9, 10, 11, 12, 13 and 14. Those procedures and controls relate to the entire Project, including the visitor facilities. Recommendations for procedures and controls for capturing costs are stated in the Task Sections of the report to which the recommendations apply. Reclamation has three overhead pools, and the visitor facilities were charged \$1 million from the pools in FY 1994. Our evaluation of all indirect charges is discussed in Task 14. We found one potentially unreasonable cost allocation (aircraft charges - discontinued by Reclamation at the end of FY 1994). Cost allocation bases (primarily based on direct labor dollars) appeared to be both consistently applied and reasonable. Cost allocations tested were mathematically accurate. Our recommendation regarding the allocation of costs for the Denver office is stated in the Task 14 section of the report.

Task 9 - Status of Construction Claims

We found one claim related to the construction of the visitors facilities. The contractor for the visitor center and parking structure submitted a \$31 million breach of contract claim to Reclamation on July 28, 1995. The Contracting Officer issued a final decision on the claim on September 21, 1995, stating that the claim, as submitted, was denied. The contractor filed a breach of contract lawsuit against Reclamation with the Court of Federal Claims on October 4, 1995. We were told by the contractor that the contractor fully expects to win because of egregious acts by Reclamation. Reclamation believes the claim is unsupported.

Reclamation's Denver office plans to complete a technical evaluation of the project by January or February of 1996. This evaluation, which includes an as-built CPM (Critical Path Method) time/activity schedule that represents actual events as they occurred, is expected to provide the basis for a determination of an appropriate amount, if any, to be paid to the contractor for contract modifications. Reclamation has requested Interior's Office of Inspector General to perform an audit of the claim and has notified the Architect-Engineer of the project that the Government has not waived its right to file a future claim for errors or deficiencies in designs, drawings, specifications, and/or costs for administration of a claim. In addition, Reclamation has retained \$1.3 million from the contractor's earnings to cover potential liquidated damages resulting from the contractor's delay and for work not completed or repairs not made.

We recommend that Reclamation: (a) continue efforts to resolve the claim on a fair and equitable basis and in accordance with the contract and disputes resolution process; (b) upon completion of the technical evaluation and final resolution of the claim, determine if there are policies and procedures that should be modified in order to improve contracting processes that could help to preclude future contract disputes and claims; and (c) keep the Boulder Canyon Project Contractors informed as to the status and progress of the claim.

Task 10 - Internal Fiscal Controls Related to Visitors Facilities

We read the Office of Inspector General's (OIG) audit report on cost increases incurred on the visitor facilities and found that it stated that the cost escalation occurred because the Bureau did not adequately oversee or control the costs. The report also indicated, among other reasons for the cost increases, that the facility had increased in size, the design had been changed, and there was an inadequate original cost estimate. The report recommended improvements of the budgeting and funding process, and the recommendations have been implemented.

The above OIG audit identified certain internal fiscal control breakdowns at the Bureau of Reclamation offices in Denver and Washington, D.C.. Although we identified similar reasons for the cost increases as indicated in the OIG's report, we concentrated our review on internal fiscal controls at Hoover Dam and the Lower Colorado Region in Boulder City, Nevada. We found that procurement and contracting procedures at this local level during the construction period appeared adequate and in compliance with Federal and Reclamation Acquisition Regulations, including the competitive bidding process.

Our evaluation of the nine construction contracts for the visitor facilities, including provisions for change orders and pricing adjustments, disclosed apparently sufficient information and instructions on change orders to ensure proper pricing and accounting. The pertinent clauses in the contracts appeared to support proper internal controls to ensure the validity and accuracy of change orders and contract modifications. We evaluated 15 change orders applicable to the contract for the visitor center and parking structure (which constituted 62 percent of that contract's cost increase) and found that established procedures for review and approval of the change orders appeared adequate and that the procedures were followed.

Although we have made no recommendations in this Task, we note that the following related recommendations should have a positive impact on internal fiscal controls:

a. We made a related recommendation in Task 9 (Status of Construction Claims) for Reclamation, upon completion of the technical evaluation and final resolution of the pending breach of contract claim by one of the construction contractors, to determine if there are policies and procedures that should be modified in order to improve contracting processes that could help to preclude future contract disputes and claims.

b. We concur with the recommendations made by the OIG concerning budgeting and funding (internal fiscal controls) which should help to control costs in the future. These

recommendations are as follows: (1) revise the Bureau's budget reporting procedures to disclose increases in project costs and to establish a specific threshold for significant cost increases that cannot be exceeded without the Commissioner's signatory approval, (2) revise Reclamation Instructions to ensure that individual appropriation ceilings are indexed for each project and are reported to the Congress in annual budget justifications as the authorized spending limit, and (3) transfer or reprogram sufficient construction funds for use on the visitor facilities to ensure substantial completion of the program as soon as possible to minimize interest during construction costs.

c. We reported in Task 11 (Actual Expenditures and Encumbrances Relating to Visitor Facilities Remaining to be Paid) that the Boulder Canyon Project power Contractors should not bear the increases in visitor facilities costs. We made recommendations in that Task for Reclamation to initiate a legislative change that would relieve the Contractors of the requirement to pay for the cost increase and to establish a self-sustaining revolving fund to pay for the cost increase and recurring operating and maintenance costs. We also made a recommendation in Task 11 concerning reduction of interest costs on the visitor facilities through debt refinancing.

Task 11 - Actual Expenditures and Encumbrances Relating to Visitors Facilities Remaining to be Paid

We identified actual expenditures, obtained applicable budget reports that summarized obligations, obtained completion cost estimates, and determined how the estimates were derived. Actual expenditures for the visitor facilities through September 30, 1995 were approximately \$84 million, plus interest during construction of about \$35 million, and estimated costs to complete the facilities of about \$4 million - a total cost of over \$123 million. In addition there is a pending \$31 million breach of contract claim against Reclamation (see Task 9).

The visitor facilities at the Boulder Canyon Project (BCP) are a national resource that attract visitors from all over the the world. When the Hoover Power Plant Act was passed in 1984 the estimate of visitor facilities cost provided to the Congress was \$32 million in 1984 dollars (some \$54 million in current dollars). The cost of the visitor facilities has increased to \$123 million. An additional \$31 million is claimed by a construction contractor.

The BCP power Contractors should not bear the increases in visitor facilities costs. Visitor facilities costs have no relationship to the power generated by Hoover Dam for which the BCP power Contractors pay in full, including all costs for operating and maintaining the Dam. The BCP power Contractors stated that they had absolutely no participation in the visitor facilities construction, nor the management or control of visitor facilities construction costs.

The amount of visitor facilities cost in excess of the original estimates and the day to day operational expenses should be the obligation of the United States. Unless legislative relief is provided, the Project Contractors may ultimately have to pay an estimated \$160 million more than originally planned for the visitor facilities. Accordingly, we recommend that Reclamation initiate a request for legislative change that would: (a) relieve the Project Contractors of the requirement

to pay for the visitor facilities in excess of the amount on which the 1984 Hoover Power Plant Act authorization was based (i.e., \$32 million, adjusted for inflation and interest), and (b) establish a self-sustaining revolving fund for payment of the increased cost of the facilities and recurring operating and maintenance costs. We also recommend that Reclamation: (c) determine if the visitor facilities debt owed by the BCP power Contractors can be refinanced at a currently lower interest rate and initiate appropriate action if it is determined that a lower interest rate can be arranged.

Task 12 - Power Repayment Spreadsheet Study (PRSS) - Cost and Revenue Data

We gained an understanding of the purpose and intent of the Power Repayment Spreadsheet Study (PRSS) and documented the flow of information sources for the data contained therein. We also documented the compilation procedures applied in formulating the document. Furthermore, we interviewed Western and Reclamation personnel to gain added insight into the specific objectives of specific data elements. We obtained a crosswalk document from Western's headquarters Compliance Branch and determined for what purpose the document is utilized, how it is prepared, and the intentions of the format used.

We found certain inefficiencies and weaknesses relating to the process of preparing the PRSS which included duplication of effort between the Finance, Compliance, and Rates departments in the compilation of the data entered into the PRSS. We also noted weaknesses related to the preparation of the crosswalk including, lack of written procedures, lack of proper training for Western's Public Utility Specialist (PUS) responsible for preparing the PRSS, high turnover in the PUS position, and outdated prerequisites for the PUS position. Furthermore, we identified specific data elements, as presently displayed, in the PRSS that could be modified in a manner that would be more consistent with the amounts included in the audited financial statements or more meaningful and easier to understand to the reader of the financial statements.

In addition, we noted that with respect to the crosswalk document, there are cumulative differences between the PRSS and the financial statements which have not been resolved or explained, the cumulative PRSS amounts do not agree with the amounts included in the crosswalk, and the crosswalk was compiled subsequent to preparation of the PRSS - rather than the crosswalk providing the basis for entries to the PRSS.

We recommend that Reclamation and Western: (a) eliminate duplicative efforts for compiling PRSS and financial statement data and improve coordination between Rates, Compliance and Finance (the three departments responsible for preparing these documents); (b) summarize, in writing, the duties and procedures to be performed by the PUS in developing rates for the Project, and centralize existing history, guidelines, training material, and other explanatory documentation on ratemaking for immediate availability, use, and access by the PUS, as well as by management, trainers, contractors, auditors, and others that may require access; (c) take necessary steps to ensure consistency and continuity in preparing the PRSS and other associated ratemaking work products - this will necessitate adequate training in the PUS position and strengthened management oversight; (d) update the PUS position description to more accurately

reflect the minimum qualifications required to perform the duties and procedures of the PUS position; (e) change the way uprater payments are displayed in the PRSS to show principal and interest; (f) reconcile revenues compiled in source documents to revenues in the financial statements on a monthly basis, and in total for the year, prior to the completion of the year-end PRSS and financial statements; (g) eliminate undelivered orders from cost categories in the PRSS - the undelivered orders should be presented as a component of the difference between accumulated revenues in excess of expenses for the Project and the unobligated Colorado River Dams Fund (CRDF) cash balance as of the end of the year; (h) modify the format of the PRSS to eliminate one column (Column 6) and add two new columns (Columns 28 and 30) to cause the carry-over and working capital balances to be more meaningful; (i) include historical amounts from the first 50 years in the PRSS (i.e., a cumulative one-line entry - 1937-1987, with appropriate amounts in each column, as the first line on the PRSS); and (j) implement the following with regard to the crosswalk: investigate the cumulative differences which currently exist in the crosswalk, and initiate a resolution process to eliminate the differences; create a separate, more user friendly, document that provides a reconciliation between the amounts included in the financial statements and the current year column of the PRSS; provide in-depth explanations for the differences that may exist between how amounts are reported in the PRSS as compared to the audited Project financial statements; improve the timeliness of the crosswalk by preparing it prior to preparing the PRSS; reconcile the audited financial statements with the current year column of the PRSS in connection with the preparation of the two separate documents in order to provide for timely recognition, resolution, and elimination of any differences that may exist between the two documents; and, the crosswalk should be prepared by Western accountants in the Phoenix Area Office and coordinated with Western's headquarters and with ratemaking personnel in the Phoenix Area Office.

Task 13 - Obligated Fund Balances

An obligation is a legal agreement between Reclamation or Western and another party for orders, contracts, services, and similar transactions during a given period that require future payment. Funds that are obligated for these purchases are referred to as obligated funds, unliquidated obligations, or undelivered orders.

Overall, Reclamation and Western appeared to properly record, monitor, and account for these funds. However, for improved efficiency, Reclamation should consider automating their procedures for extracting undelivered order amounts for reporting to Western for the PRSS - in lieu of the manual process currently used.

In reviewing the undelivered orders (i.e., goods and services that had been ordered from vendors but not yet received) reported by Reclamation to Western for the PRSS, we found that an initial amount of \$1,640,135 was reflected in the PRSS as an annual expense for 1990. Since 1990, the amounts reported actually represent the net changes in undelivered orders from the prior year, rather than representing the total undelivered orders for the year. For example, undelivered orders reported by Reclamation to Western as of 9/30/94 totaled \$711,000, whereas the actual amount was \$3.4 million. These amounts are included as historical expenses (which

increase revenue requirements) in the PRSS. We were told that these undelivered orders have been reported as such in the past in order to have sufficient cash to pay for the items when received. However, this requirement does not appear necessary, since the funds for undelivered orders had to be available before the items were ever ordered.

Inclusion of the undelivered orders in historical expenses results in overstatement of expenses on the PRSS, unnecessary acceleration of costs, inaccurate reporting, and data that differs from the financial statements. It particularly impacts the replacements column of the PRSS, since replacement capital advances are computed based on the amounts reported in that column. (See Task 12 for further discussion of undelivered orders in the PRSS, and see Task 15 for discussion of undelivered orders relating to replacements.)

We recommend that Reclamation: (a) consider automating their procedures for extracting undelivered order amounts from the Cost File Summary for reporting to Western. (This automatic process could also include other line items, in addition to undelivered orders, that are also reported to Western for PRSS purposes.) We recommend that Western: (b) no longer include undelivered orders in PRSS historical expenses, (c) adjust prior years' historical expenses in the PRSS by eliminating undelivered orders from those columns that previously included the orders, and (d) recalculate replacement capital advances after undelivered orders are eliminated from historical expenses in Column 5 of the PRSS.

Task 14 - Overhead and Other Indirect Charges Allocated to the Project

We documented and summarized the types of indirect charges allocated to the Boulder Canyon Project, determined the methods and bases for allocating indirect costs, assessed the propriety of the allocation bases, determined consistency of allocation methodologies, determined the basis for budgeting for overhead pools and procedures for controlling the costs, reviewed the mathematical accuracy of allocations, selected a sample of charges in the cost pools and reviewed supporting documentation to determine whether the costs were prudent and related to the Project, and reviewed consistency of overhead amounts between years.

Reclamation's indirect costs are in three pools, and the Boulder Canyon Project received \$5.2 million in charges during FY 1994 (8 % of total costs in the pools). Labor and contractual services comprised the majority of the costs. The costs were distributed primarily based on direct labor dollars - a system which was consistently applied to all Regions and appeared to be reasonable. We tested 76 indirect cost transactions and found one potentially unreasonable allocation (aircraft charges). Reclamation discontinued those costs at the end of FY 1994. The system of surcharges and revolving funds used to allocate indirect costs does not result in actual costs being reflected each year. For example, in FY 1992 the surcharge in one cost pool was \$4.2 million more than actual expenses in the pool, resulting in overcharges to the activities receiving charges from the pool - including the Boulder Canyon Project. Although any over/under charges are adjusted in the following year, this revolving system distorts the actual expenses reported for a particular year. We also found constant changes in the Denver overhead pools. Reorganization of cost pools to simplify charging and achieve efficiencies and improved accuracy is worthwhile;

however, constant changes result in ineffective analysis for reasonableness and comparison between years.

Western's indirect costs are divided into two primary categories, from which the Boulder Canyon Project received \$1.2 million in charges during FY 1994. Controls over indirect costs at Western appeared adequate to ensure that appropriate indirect costs are allocated to the benefiting project in a reasonable and consistent manner.

Overall, we found the indirect cost systems at both Reclamation and Western to be complex, with both organizations in a state of change. Continual and close oversight of the indirect cost process is needed to ensure consistent and equitable allocation of costs. Upon review of our report, Reclamation told us their indirect cost system was being reviewed and that changes were expected to be made.

We recommend that Reclamation: (a) attempt to stabilize the indirect cost allocation process in the Denver office by minimizing changes to the process, and (b) consider eliminating the carryover of surplus or deficit surcharges each year, and instead, make closing entries at the end of the fiscal year to adjust the surcharge amounts to actual expenses. We recommend that Reclamation and Western: (c) begin including overhead analyses in the Ten-Year Operating Plan that show both historical and planned overhead rate data, dollar amounts of each cost pool and dollar amounts allocated to the Boulder Canyon Project from each pool, description and composition of each cost pool, methods and bases for allocation of costs, rationale for changes in cost pools and cost distribution, and analysis of significant changes in dollar amounts allocated between years.

Task 15 - Accounting for Replacements

Accounting for replacements was one of the 11 issues addressed in the Implementation Agreement. However, our evaluation found that the issue had not been entirely resolved, in that there was not a clear understanding of what constituted replacements. This was due to the difficulty in defining replacements and to the complexity of the repayment mechanism for capital advances. We were told that the Replacements Manual was the primary source for classifying replacements, but we found the manual was not always used and that it was not entirely consistent with the regulations. The general definition of replacements is identical in both Department of Energy and Department of the Interior regulations regarding the Boulder Canyon Project (i.e., replacements shall mean such work, materials, equipment, or facilities necessary to keep the Project in good operating condition). However, more specific and detailed accounting procedures are explained in the Federal Energy Regulatory Commission regulations (18 CFR) which provide for appropriate classification of assets and expenses and which, we believe, should be the primary reference source for classification.

We found that of 20 operation and maintenance (O&M) expense items evaluated, 11 appeared to be capital assets rather than O&M expenses. We also found that the work order system appeared to be sufficient to capture all costs, including labor and materials; however, we

did find a replacements work order that had been charged to maintenance expense rather than to replacements (\$373,499 in labor costs and \$45,372 in material costs). We found that undelivered orders (e.g., \$671,944 in FY 1994) were included in the cost of replacements. This is not considered appropriate, since the orders do not actually represent a cost (i.e., an expense) until the items are received. This resulted in: (a) an overstatement of expenses in the PRSS, and (b) in data being reported in the PRSS that was different from data in the Ten-Year Operating Plan. (See Task 12 for further discussion on the PRSS and Task 13 for discussion of undelivered orders.)

There is a 50-year repayment period for capital investments. The Contractors pay the full cost annually. The difference between the annual full cost and the amount the Contractors would have paid on a 50-year amortization basis (if funding had been provided from Federal appropriations) is accumulated as repayable advances. We found that replacements are the only costs being included in the capital investments amount, although there are other capital investments which should also be included, such as additions and betterments (\$1,552,999 in FY 1990-94) and extraordinary maintenance (\$1,386,900 in FY 1990-94). There are plans to spend \$11.5 million for other similar capital investments during FY 1995-1999. We found that these costs are no different than replacement costs, in that they represent costs for capitalizable assets (not expenses). Therefore, they should be included in repayable advances.

We recommend that: (a) 18 CFR (rather than the Replacements Manual) be used as the primary source for classifying assets and expenses; (b) reference to generally accepted accounting principles be made for additional assistance in determining proper classification of expenditures as either assets or expenses; (c) all capital asset costs be included in the calculation of repayable advances, including replacements, additions, betterments, and extraordinary maintenance; (d) undelivered orders be excluded from the cost of replacements; (e) in order to ensure that replacements-related labor and other costs are included in the cost of replacements, a determination of the amount of such costs that have been incorrectly excluded from replacement costs and the amount of capital asset items previously included in O&M needs to be completed; amounts excluded inappropriately and all capital asset amounts should be included in the schedule of capital advances; and, (f) a \$5,000 threshold (or other amount consistent with Federal policy on capitalization) should be considered for designating individual assets to be included in replacement costs and in the calculation of repayable advances; in conjunction with adopting this threshold, the Implementation Agreement should be modified to eliminate the 96% - 4% provision for items included in repayable capital advances.

Task 16 - Multi-Project Costs Allocated to the Project

Multi-project costs are those costs of facilities which were paid for through the appropriation process by one Project, but provide benefits to other Projects. Western has identified three such facilities - the Phoenix Service Center, the Mead Service Center and the new SCADA system - with a total cost of \$54.7 million. This cost is to be allocated to seven projects, with the Boulder Canyon Project's share being \$5.7 million.

Overall, Western's procedures for determining the costs appear to be reasonable, the costs agreed with source documents and calculations were accurate. However, in reviewing the allocation method for the SCADA system, which is based on the percentage of data points applicable to each Project according to the old system, we found that it is unknown whether the new SCADA system will produce the same allocation results. Therefore, upon installation, the new system should be reevaluated.

Current procedures for repaying the costs include calculations based on a 15-year service life of SCADA system replacements and a 50-year service life of SCADA system additions. We found that there is no difference in replacements and additions, in that both are capital investments and subject to a 50-year repayment period according to Department of Energy regulations. We also found that current repayment procedures include a level payment method. Changing to a variable payment method would save the Project approximately \$6.1 million in interest expense over the 50-year repayment period. We note in this regard that the current Project Contractors only have 30-year contracts (i.e., 1987 to 2017), and a 50-year repayment plan may not be compatible with the financial objectives of the individual Contractors.

We recommend that Western: (a) upon installation of the new SCADA system, reevaluate the number of data points and their distribution to ensure proper allocation of the system's costs, and (b) in consultation with the Project Contractors, consider changing the calculation and method of repayment of the multi-project costs from a level payment method (which includes a 15-year service life for SCADA system replacements) to a variable payment method (which includes a 50-year repayment period for all components of multi-project costs).