

PD-ABP-714

*Environmental Infrastructure
through the
Mobilization of Consulting Engineers*

INTERIM FINAL REPORT

APRIL 1995 - MARCH 1997

&

Quarterly Report

for the Period

January 31, 1997 - March 31, 1997

Cooperative Agreement AEP-0015-A-00-5013

Submitted by:

**THE AMERICAN CONSULTING ENGINEERS COUNCIL
RESEARCH AND MANAGEMENT FOUNDATION**

To:

**UNITED STATES - ASIA ENVIRONMENTAL PARTNERSHIP
Asia Bureau
U.S. Agency for International Development**

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I. Introduction

This report summarizes the activities of the American Consulting Engineers Council's Research and Management Foundation (ACEC/RMF) under its Cooperative Agreement with the United States Agency for International Development (USAID) for the U.S. - Asia Environmental Partnership (US-AEP). The report covers the contract period of April 1995 to March 1997 and serves as both an Interim Final Report and the quarterly report for the period January 1, 1997 - March 31, 1997. The reason for this is that an extension is pending for this Cooperative Agreement which was originally scheduled to expire on March 31, 1997. Thus, in an effort to stay in compliance with the terms of the Agreement, and to keep all involved parties apprised of the situation, ACEC/RMF has prepared this report in a manner that covers both the original project as a whole and the latest quarterly reporting period.

The purpose of the ACEC/RMF contract was to assist US consulting engineering firms in the environmental infrastructure markets in Asia. More specifically and as stated in the annual work plans, the program goals were as follows:

- To facilitate the develop of environmental infrastructure facilities in Asia
- To help build partnerships between U.S. and Asian private sector companies
- To enhance relationships between ACEC and the Asia-based consulting engineering associations through the International Federation of Consulting Engineers (FIDIC)
- To promote the transfer of U.S. engineering and environmental services
- To act as catalyst in bringing multilateral and private sector financing to environmental infrastructure projects in the Asia-Pacific region.

These goals were accomplished through a variety of work methods, including: the evaluation and dissemination project leads; one-on-one counseling with firms; organizing of workshops on the markets and business conditions for environmental infrastructure development in the Asia-Pacific region; and, establishing contacts and networks with the private sector and non-profit organizations.

The four environmental sectors which the program focused on remained unchanged throughout the contract period. The sectors were:

- Municipal water supply;
- Municipal and industrial wastewater treatment
- Solid waste management; and
- Hazardous waste management.

In addition, ACEC/RMF expanded its focus from the original two countries designated in the Cooperative Agreement to include all of the 10 countries with US-AEP representatives. These countries are as follows:

Indonesia	Thailand	Philippines	Malaysia
Singapore	Hong Kong	Taiwan	Korea
India	Sri Lanka		

II. Summary of Accomplishments

In summary, ACEC/RMF met or exceeded all the items in its annual work plans. **TABLE 1** summarizes the planned versus actual results for the contract period. Over 450 U.S. consulting engineering and environmental service firms were advised and counseled about environmental infrastructure markets in Asia, 39 major project leads were evaluated and distributed to U.S. firms, three workshops were completed, and extensive program support to US-AEP was accomplished.

Documenting the actual commercial successes was difficult for four reasons. First, given the long project life cycles, ACEC/RMF efforts at getting firms positioned for projects sometimes would not be realized for two or three years. Second, there is an unclear distinction between a project award and actual implementation. U.S. firms were often shortlisted or awarded a project, yet due to financial or technical difficulties, project revenues may not have been realized. Third, there were inadequate resources under the contract for project tracking and follow-up with firms to assess the level of success or failure. And fourth, ACEC/RMF's mobilization efforts were heavily focused in the early stages of the project and were explicitly not designed to aid in project development, negotiations, financing and implementation. These stages were best left to the firms pursuing the work.

The only problems encountered with the work efforts were related to resource shortages. ACEC/RMF was not able to meet all the requests for support and information, both from U.S. industry and the US-AEP Asia field representatives. Given that only one person was assigned to ACEC/RMF for the initiative, this situation was somewhat expected. In addition, once the advantages and capabilities of the **Mobilization of Consulting Engineers** program were established, additional request for support came in from US-AEP and other U.S. environmental and trade groups. The new USAID-ACEC/RMF agreement is designed to alleviate these resource constraints (see section V).

Over the two year contract period, US-AEP underwent several organizational changes. The initial collaboration on project leads with the Infrastructure Finance Advisory Service (a subcomponent of US-AEP) ended, and the entire Environmental Infrastructure strategy of US-AEP underwent a comprehensive review. Other changes in the USAID strategy toward a "Clean Revolution in Asia" caused some redirecting of resources and the need by ACEC/RMF to establish new relationships and contacts. The role of ACEC/RMF, however, never changed, and its mission of mobilizing U.S. industry and helping the development of environmental infrastructure facilities in Asia was accomplished.

TABLE 2 shows a matrix of the four environmental infrastructure sectors which ACEC/RMF focused on cross-referenced with the 10 US-AEP countries. An X indicates that a project lead for this sector from the country was received by ACEC/RMF and acted upon.

Several comments are in order concerning Table 2. First, the ten countries represent a very large geographic region and overall market size in order to track and evaluate. No single company could possibly target all the businesses opportunities available in this overall market, yet ACEC/RMF was called upon to monitor projects opportunities covering all ten countries. This is partly why some staff shortages were evident. Secondly, note that the developing countries tended to have project opportunities which

reflected their relatively basic environmental infrastructure needs, e.g. potable water supply and wastewater treatment. The higher income countries, in turn, had project leads related to more advanced infrastructure needs in solid waste incineration and hazardous waste management. Finally, business opportunities exist in every country in all four sectors. The chart only shows where ACEC/RMF's involvement was most frequent.

TABLE 1
 AMERICAN CONSULTING ENGINEERS COUNCIL'S
 participation in the
 U.S. - ASIA ENVIRONMENTAL PARTNERSHIP
 WORK PLAN OBJECTIVES VS ACTUAL RESULTS
 APRIL 1995 - MARCH 1997

ACTIVITY	OBJECTIVE	ACTUAL
1. Counseling to U.S. Firms (no. of firms)		
* On Asia Environmental Markets	250	470
* Assist in New Market Entry	20-30	35
* Access to US-AEP Resources and Information	400	700
2. Project Mobilization (no. of projects)		
INDONESIA		3
THAILAND		8
PHILIPPINES		4
INDIA		6
SRI LANKA		-
MALAYSIA		2
SINGAPORE		5
HONG KONG		8
TAIWAN		3
KOREA		-
* Total	15	39
3. Support US-AEP Environmental Infrastructure Component		
* Assist in Asian Delegations to U.S.	none	5
* Assist in Strategy and Washington Coordination	none	Completed
* Attend US-AEP Partner Meetings	2	2
* Serve on NASDA Technology Review Panel	none	12 mtgs
* Reporting Project Successes and Expenditures by Country	none	Completed
3. Convene Workshops on Environmental Infrastructure Opportunities	3	3
4. Outreach		
* Publish Articles in ACEC Publications	10	19
* Convene International Opportunities Seminars at ACEC Conf.	5	5
* Speak at Outside Venues on EI Opportunities in Asia/US-AEP	3	10
* Distribute ACEC/US-AEP Material	250	570
* Link U.S. Consulting Engineers to ETNA	300	450
5. Prepare Reports		
* Assessment of ACEC Firms Preparedness for Export	X	Completed
* Barriers to US Consortia-Building and Anti-Trust Analysis	-	Completed
* Analysis of ACEC/RMF Asia Regional Office	-	Completed
* Annual Report (April 1996)	1	1
* Trip Reports	3	3
* Quarterly Progress and Financial Reports	7	7

TABLE 2

AMERICAN CONSULTING ENGINEERS COUNCIL

Project Tracking and Mobilization
By Sector and Country

April 1995 - March 1997

	WATER SUPPLY	WASTEWATER TREATMENT	SOLID WASTE	HAZARDOUS WASTE
INDONESIA	X	X	X	
THAILAND		X	X	
PHILIPPINES	X	X	X	
INDIA	X	X	X	
SRI LANKA	X			
MALAYSIA			X	X
SINGAPORE		X	X	X
HONG KONG		X	X	X
TAIWAN			X	X
KOREA		X	X	

III. Program Activities

A. Promotion and Mobilization of U.S. Firms for Environmental Infrastructure Projects

ACEC/RMF responded to project leads sent in from the US-AEP field offices. This included evaluation, packaging, identifying of potential partners and advising U.S. consulting engineering firms. Increasingly, this mobilization effort often served to find a U.S. partner for an Asian company in competing for an environmental infrastructure project.

This activity also included responding to a wide variety of requests from the US-AEP field representatives. This included requests for technical information, names of U.S. firms capable of performing a particular type of environmental work, privatization trends in the U.S., BOO/BOT procurements methods, how joint ventures are established and helping to arrange U.S. site visits for Asian government officials.

The following are the major project opportunities that ACEC/RMF supported and promoted with U.S consulting engineering and environmental firms during the contract period.

INDONESIA

- Central Java Urban Development Project - Advised project bidders of project status and served as liaison to the US-AEP urban infrastructure representative in Jakarta.
- Bumi Serpong Damai Water Supply Project - Conducted site visit to this satellite city development and advised U.S. firms of the sponsors plans for expanded water supply and wastewater treatment.
- Bandung Bulk Water Intake and Treatment Facilities - This 25 year build-own-transfer or joint venture project is at the feasibility study stage; advised firms of project status, possible financing arrangements and government contacts.

THAILAND

- Bangkok Metropolitan Authority, Solid Waste Incinerator
Recommended seven U.S. firms to pursue this \$20 million project. Three U.S. firms were shortlisted (CDM, Stone & Webster and ERM).
- Bangkok Metropolitan Authority, Solid Waste Composting project in Nong Kham
Provided U.S. - Thailand Development Partnership with technical material and technology status report of U.S. capabilities in solid waste composting. Explained preferred procurement approach for such facilities and privatization model.
Recommended five U.S. developers/operators to team with Thai firm for bidding.
- Identify U.S. partners for Ban Pu Corp., Golden Plan Co., Ltd, and ECLAT Systems, Inc.

- Bangkok Metropolitan Administration - wastewater treatment systems in five surrounding provinces (Stages 3 & 4) and for BOO/BOT waste-to-energy projects in three provinces.
- Project development support for landfill gas system - Bangkok, Thailand
Assisted the Kasetsart University and Group 79 (private landfill operator) in developing a landfill gas control project. After visiting the landfill site north of Bangkok in February 1995, ACEC/RMF identified a suitable U.S. engineering firm to provide technical support. Helped setup the terms of reference, initial feasibility study content and project phasing.
- Identified U.S. partners for teaming with Aquathai on two wastewater projects (municipality of Samut Prakarn and Bangkok Metropolitan Authority Phase IV wastewater treatment system). Also, partners were identified for smaller scale water supply projects and hospital waste facilities.
- As part of the US-AEP's Environmental Infrastructure workshop in San Diego, ACEC/RMF coordinated matchmaking sessions between visiting Thai officials and U.S. companies for the above projects. The following U.S. and Thai firms participated in these private discussions:

Thailand Firms

Becthai	EMC Public Company
Theprasit Development	North West Water International

U.S. firms

Black & Veatch	CDM International
EnviroTel	Greeley & Hanson
Parsons Engineering Science	Montgomery Watson
Brown & Caldwell	Leo A. Daly

PHILIPPINES

- Identified suitable U.S. environmental consulting firm to help Pepsi-Cola Products deal with an effluent treatment problem.
- Assisted PICOP, a Philippine paper mill developer, find a U.S. engineering consultant to prepare a feasibility study for the plant's wastewater treatment facility. Met with PICOP in Manila to discuss the project and implementation.
- Conducted site visit to Palawan, Philippines landfill (December 1995) and assist in feasibility analysis of new landfill with Asian Development Bank funding.
- Gave a presentation to 20 mayors and municipal officials in Manila on landfill siting and development. Presentation was sponsored by the U.S. Department of Commerce in the Philippines.
- Three solid waste projects sponsored by the Metropolitan Manila Authority

INDIA

- **Madras Metropolitan Water Supply & Sewerage Board.**
Identified U.S. firms to join Indian partner in submitting pre-qualification documents for an OECF funded sewerage project. Contract is worth \$7.3 million. Ten companies were contacted and two were shortlisted.
- **Hyderabad Metropolitan Water Supply & Sewerage Board.**
Informed 8 U.S. engineering firms/developers of project lead and details. Two U.S. firms were subsequently shortlisted.
- Issued project teaming lead for Otoklin, Inc. on a sewage treatment plant.
- **Maharashtra Industrial Development Corp.**
Advised firms of joint venture opportunities for a comprehensive solid waste management plant

SINGAPORE

- Distributed teaming leads for Jurong Engineering Limited, Baikoff & Associates and CNA Engineers.
- Sent out project lead for desalination plant study and for the Tuas II solid waste incineration plant.
- Identified firms with "clean room" design capability for semiconductors manufacturing plant.
- Sewer Rehabilitation pre-qualifications
- Land Transport Authority - environmental investigations for mass transit line expansion
- Refuse incineration projects for the Ministry of the Environment

HONG KONG

- **Prequalifications for landfill project**
Mobilized seven U.S. firms to pursue large (\$100 million) landfill construction project in Hong Kong. Firms were advised to register for upcoming procurement and be prepared for pre-qualification stage.
- Mobilized six U.S. firms as partners to local Hong Kong company in the "Strategic Sewage Disposal Scheme" project.
- Two teaming leads - Nishimatsu and Consultants in Environmental Sciences.

TAIWAN

- Monitored seven waste-to-energy project opportunities with the Taiwan EPA. This was done in collaboration with the Department of Commerce Advocacy Center and Environmental Technology Exports group. Phone interviews were conducted with the five largest U.S. waste-to-energy firms to get their views on the Taiwan market and access US-AEP support. The five firms were:
 - WMX Technologies (Waste Management, Inc.)
 - Ogden Corp.
 - Westinghouse Electric
 - American Ref-Fuel (Browning Ferris, Inc.)
 - Molten Metal

ASIAN DEVELOPMENT BANK

Advised firms of the ADB representative for US-AEP, ways of contracting for consulting services with the Bank, and project opportunities “in the pipeline” through ADB funding. This included the Majuro Water Supply and Sanitation Project and Palawan landfill.

B. Workshops

ACEC/RMF supported and co-sponsored three US-AEP workshops during the contract period aimed at helping U.S. firms identify and develop environmental infrastructure projects in Asia. The workshops were planned as part of a progression of three events over the two year period. The third event, a two day culminating workshop in Manila, Philippines, was very well received by the participants and resulted in significant exposure for US-AEP and USAID with Asian government officials and private firms.

ACEC/RMF served as the primary co-sponsor for the first one-day workshop in Washington DC in September 1995 and handled all the planning, marketing and logistics. Eighty-five participants were in attendance. An afternoon industry roundtable discussion with moderators proved to be very effective in understanding how U.S. firms compete in the region and what services they need most from US-AEP and ACEC/RMF.

The second US-AEP workshop, entitled "Gaining a Competitive Edge in the Asian Environmental Infrastructure Market" and held in San Diego in March 1996, was co-sponsored by the Institute of the Americas. Over 140 attendees from the U.S. environmental industry learned about market conditions for environmental infrastructure projects in Asia, identified business opportunities, networked with U.S. and Asian firms and heard about US-AEP's current and future programs. ACEC/RMF helped organize the event, recruited member firms, shaped the agenda, and participated in the two day event.

The third workshop, held in Manila, Philippines in September 1996, featured speakers and networking opportunities with major private sector developers, banks and senior government officials from India, Indonesia, Philippines, Taiwan and Thailand. Information was shared on the leading project opportunities in the region, changing business conditions, project financing and US-AEP resources and personnel available for assistance. US-AEP and ACEC/RMF also coordinated one-on-one matchmaking sessions between US and Asian companies. Future workshops should be conducted in selected countries to build upon the relationships that were established at this meeting and to further US-AEP's objectives in the region.

C. Counseling to U.S. Engineering and Environmental Firms on Asian Partners & Business Strategy

ACEC/RMF assisted over 350 firms in exploring partnering arrangements with Asian firms and devising market entry/penetration strategies. One-on-one counseling sessions were held with the firms at ACEC's national and fall conferences, at the US-AEP workshops in Washington DC, San Diego and Manila, Philippines, and at the ACEC headquarters in Washington DC. Most of the individual counseling was with medium size firms (50-200 employees) .

In addition, partnering leads were identified through meetings with engineering associations in Asia and through meetings with individual local firms in Korea, Hong Kong, Taiwan, Malaysia, Philippines and India. U.S. company literature was distributed, as appropriate, and follow-up steps planned to help build U.S. - Asian private sector partnerships.

The following are some of the U.S. firms that were assisted:

Morrison-Maierle Environmental Corp.	David Evans & Associates
Sukumar, Inc.	Lowney & Associates
Engineering Dynamics International	Pollution Prevention
International	
Brunsing & Associates	Gershman, Brickner & Bratton
R.W. Beck	Wilson & Company
Post, Buckley, Schuh & Jernigan, Inc.	Barrett Consulting Group
Dannenbaum Engineering Corp.	PKP Engineers
Harding Lawson Associates	Earth Tech
Brown & Caldwell	Alvord, Burdick & Howson
EnviroTel	Greeley & Hanson
Haley & Aldrich	Sheladia Associates
DMJM	Tighe & Bond International
Alenco International	Leo Daly

D. Outreach and Communications

Considerable efforts were made over the contract period to inform U.S. industry about US-AEP and the initiative with ACEC/RMF. By March 1997, articles, press releases and newsletters about the program had been distributed in over 15 different publications and reached a wide audience.

ACEC publications were used extensively in "getting the word out" to U.S. engineering and environmental firms. The primary ACEC publications were The Last Word (weekly newsletter with a circulation of 12,000), the M.O. Memo (sent to all 52 ACEC Member Organizations leadership and executive directors, who in turn may distribute to state members), and the American Consulting Engineer magazine (published bimonthly with a circulation of 21,000).

The American Consulting Engineer magazine was mailed also to all US-AEP representatives and Department of Commerce US&FCS offices in order to increase the exposure of U.S. engineering expertise and ACEC resources.

In addition, announcements of the ACEC/RMF initiative with US-AEP were published by the following organizations:

- * Engineering News-Record
- * Asia Environmental Business Journal
- * World Trade Center Institute - Baltimore
- * USAID West Coast Outreach Center
- * California - Southeast Asia Business Council
- * Water and Wastewater Equipment Manufacturers Association.

In addition to print medium, ACEC/RMF conducted outreach through 10 speaking engagements with trade associations, business groups, international meetings and with foreign government officials.

E. Support to US-AEP on Environmental Infrastructure

In addition to its core project mobilization work, ACEC/RMF supported the mission of US-AEP and USAID mission in environmental infrastructure through several venues. These activities were not necessarily related to business opportunities, yet helped foster the institutional framework for project development in Asia and in forming a long term environmental infrastructure strategy. ACEC/RMF was called upon to assist in five main areas:

- * Support delegations of Asian government officials to the U.S.;
- * Identify water and solid waste sites in the U.S. for reverse trade missions;
- * Assist in developing an environmental infrastructure strategy and R4 reviews;
- * Serve on the Environmental Technology Fund review panel for the National Association of State Development Agencies; and
- * Participate in US-AEP Partner Meetings.

For the first item, ACEC/RMF supported three main delegations of Asian officials. This consisted of arranging facility tours for Thailand government officials in October, 1995 as part of a solid waste management conference in Baltimore, Maryland. The ACEC/RMF Project Director joined the Kenan Institute and R.W. Beck (U.S. solid waste management consulting firm) in instructing five Thai government officials about waste-to-energy technologies in the U.S. and medical waste management practices. ACEC/RMF led a tour of a medical waste incineration plant and the BRESCO waste-to-energy facility in Baltimore.

The other two delegations were from Indonesia. For the first delegation in March, 1996, ACEC/RMF arranged for 12 Indonesian finance officials to meet with U.S. consulting engineers and understand their role in infrastructure development. The Indonesians were on a training mission through the USAID's Municipal Finance Project on concerning revenue bonds for municipal infrastructure. Government officials were present from the Ministry of Finance, Ministry of Public Works, Ministry of Home Affairs, and Local Government/PDAM. The two hour session included a presentation by ACEC/RMF on "Revenue Bond Financing for Infrastructure Facilities and the Role of the Consulting Engineer", followed by a roundtable discussion.

For the second Indonesian delegation, ACEC/RMF led 15 Indonesian mayors and municipal officials on a tour of private water supply facilities and operations on the West Coast. Together with Labat Anderson, the delegation learned about how cities like Seattle, San Jose and Los Angeles contract with the private sector for municipal services and the role of private water companies in ensuring clean and affordable water for millions of users. ACEC/RMF moderated technical discussions on privatization, contracting methods and water technologies.

F. Travel to Asia

In accordance with the work plan, the ACEC/RMF Project Director traveled to Asia three times over the contract period.

The first trip (October 1995) was to the Philippines, Indonesia, Thailand, and India, the second trip (March 1996) was to Philippines, Korea, Taiwan, Hong Kong, Malaysia and India, and the third trip (September 1996) was to the Philippines, Indonesia and Singapore. The following activities were accomplished:

- * Had meetings with over 65 U.S. consulting engineering firms with Asian offices and discussed market assessment, US-AEP resources, business opportunities and partnering strategies;
- * Met with US-AEP field representatives, USAID officials and U.S. Commercial Service representatives in each country for program coordination, review of projects, upcoming opportunities and avenues for future collaboration;
- * Served as business liaison for over 25 U.S. firms in seeking Asian partners on environmental infrastructure projects;
- * Met with Asian member associations of the International Federation of Consulting Engineers in Taiwan, Kong, India and Malaysia. The meetings focused on the market for engineering services in Asia, local business practices, and partnering between US and Asian firms;
- * Conducted site inspections in Philippines, Indonesia and Thailand for potential project opportunities;
- * Gave two presentations on procurement methods for private sector participation in environmental infrastructure project development;

Comprehensive trip reports were submitted to the US-AEP Secretariat and distributed widely to U.S. firms.

G. Special Reports

Three special reports were prepared during the contract period. The first report, completed in June 1995, was based on interviews with 18 U.S. firms concerning their business strategy in Asia for environmental infrastructure projects and support needs from US-AEP. The report helped to better understand the project development process in Asia and identified the major obstacles faced by U.S. firms in winning projects. The report documented the kinds of support needed by U.S. firms and the findings were integrated into ACEC's and the environmental infrastructure component's work activities.

The following firms were interviewed:

Harza Engineering
CH2M Hill
Rust Environmental
Black & Veatch
Montgomery Watson
Dames & Moore
CDM International
Waste Management
Fluor Daniel

Parsons Engineering Science
PRC Environmental
Earth Tech
Michael Baker
Harding Lawson
Tighe Bond
Barrett Consulting
Woodward Clyde
Bechtel

The second special report, completed in February 1996, was an analysis of the antitrust issues faced by U.S. firms in competing overseas and how this effects consortia-building for large environmental infrastructure projects in Asia. The report provided a review of the Foreign Corrupt Practices Act and discussed the U.S. Department of Commerce International Trade Administration's Export Trade Certificate of Review program. The report recommended some next steps for the US-AEP in fostering consortia-building among domestic U.S. competitors and linking firms with the Export Trade Certificate program.

The third report, finished in December 1996, assessed the potential location for an ACEC/RMF regional office in Asia. This was done partly under the work plans for the new agreement. The report reviewed the pros and cons of establishing a representative office in one of four countries as a regional base for ACEC/RMF and its environmental infrastructure efforts with US-AEP. Issues of cost, transportation, presence of US firms, financial institutions and eight other factors were assessed. The report was used by ACEC/RMF and US-AEP in its eventual decision to locate the regional office in the Philippines.

IV. Problems in Program Implementation

As reported in the quarterly progress reports, ACEC/RMF experienced difficulty in responding to the high volume of inquiries for support from U.S. engineering and environmental consulting firms. The time spent on communicating and disseminating US-AEP information left inadequate time to respond to US-AEP field representative's requests and mobilizing firms for specific projects. The ACEC/RMF Project Director was "spread thin" and not able to focus on targeted project leads.

In addition, the request for support from the US-AEP's Technical Support Services Contractor grew with time, placing an unplanned resource burden on ACEC/RMF. This included requests for support on the environmental infrastructure strategy, contributing to the clean technology and environmental management plans, USAID program reviews, and attending various meetings on environmental infrastructure. Such additional activities were suitable for ACEC/RMF's capabilities and expertise, yet grew to be beyond the original planned scope of work.

V. Recommendations Regarding Unfinished Work and Project Continuation

As noted earlier, the main recommendations to USAID about the past work efforts and continuing the project in the future were already addressed in the new cooperative agreement with USAID. The recommendations are as follows:

- Expand the ACEC/RMF Washington DC staff to better respond to requests from the US-AEP field representatives and US industry;
- Establish a regional office in Asia for closer coordination with the USAID missions, US-AEP representatives and US firms with offices in the region, and to get closer to the project leads and development phase;
- Build closer relationships with the engineering associations in the region (through FIDIC) and in general do more to promote US-Asian private sector partnering;
- Assist USAID and US-AEP in privatization initiatives and helping Asian government officials adopt methods for greater private sector participation and investment in infrastructure development;
- Redefine the project tracking system used to date and modify to suit a ACEC/RMF field office capabilities; and
- Develop an array of products and services that will enable ACEC/RMF to become self-sustaining in future years, and more aggressively leverage private sector funds and reduce reliance on USAID funds and programs.

VI. Financial Report

As shown in Table 3, USAID's total obligated funds for the contract period with ACEC/RMF was \$180,700. As of March 31, 1997, \$165,088 was used.

The costs to USAID represented the direct salary, benefits and travel expenses for one person (Philip Schuchter) employed by ACEC/RMF over the contract period.

The ACEC/RMF matching contribution totaled \$131,791 over the two period. This is approximately 10% higher than the committed amount of \$120,900.

The matching contributions represent the cost of office space at ACEC's Washington DC headquarters, administrative support, travel, overhead expenses, exhibit space at ACEC's national conferences, meeting space at ACEC headquarters and the contribution of time from other professional ACEC staff.

Table 3

AMERICAN CONSULTING ENGINEERS COUNCIL
RESEARCH AND MANAGEMENT FOUNDATION

Interim Final Financial Report
April 1995 - March 1997
&
Quarterly Report
January 1, 1997 - March 31, 1997

USAID Cooperative Agreement AEP-0015-A-00-5013

	BUDGET	REPORTED PREVIOUSLY	CURRENT QUARTER	TOTAL TO DATE	REMAINING	PERCENT REMAIN.
US-AEP						
LABOR	\$123,000	\$102,250	\$15,750	\$118,000	\$5,000	4%
BENEFITS	16,300	12,259	1,832	14,091	2,209	14
TRAVEL	41,400	32,223	774	32,997	8,403	20
SUBTOTAL	\$180,700	\$146,732	\$18,356	\$165,088	\$15,612	9
ACEC MATCHING CONTRIBUTION						
INDIRECT OVERHEAD	\$47,600	\$42,523	\$7,423	\$49,946	(2,346)	(+5%)
DIRECT LABOR	37,000	37,959	2,000	39,959	(2,959)	(+8%)
BENEFITS	8,500	6,476	460	6,936	1,564	18
OTHER COSTS	14,400	21,450	500	21,950	(7,550)	(+52%)
CONSORTIA-BUILDING	12,000	12,000	-	12,000	0	0
TRAVEL	1,400	1,000	-	1,000	400	28
SUBTOTAL	120,900	121,408	10,383	131,791	(10,891)	(+9%)
TOTAL	\$301,600	\$268,140	\$28,739	\$296,879	-	-