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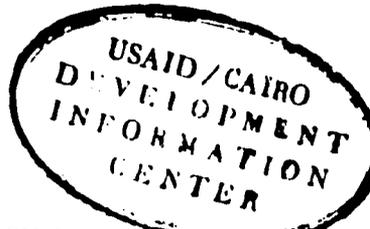


UNITED STATES AGENCY for INTERNATIONAL DEVELOPMENT

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CAIRO, EGYPT



May 24, 1982

PROJECT COMPLETION REPORT FOR THE ASSISTANT DIRECTOR, DRPS

FROM: John P. Hunt, IDPS

SUBJECT: Project Completion Report
Loan 263-K-032 Helwan/Talkha

Ref.: Mission Order 3-17, Project Completion Report

1. PURPOSE AND GOAL

The purpose of this project was to provide interim power generation commencing in 1979, until planned thermal power generating plants had been constructed and placed in operation. The goal of this project was the installation of a 120MW gas turbine generating plant near the city of Helwan and the installation of a 180MW gas turbine generating plant near the city of Talkha.

2. ACCOMPLISHMENTS, ACTUAL AND PROJECTED

The load forecasting techniques utilized by EEA were modified and a realistic load forecast for the period 1975 through 2000 was developed. The EEA generating capacity addition plan, which included a 120MW gas turbine installation in Helwan and base load thermal generating capacity installations, was modified to include 180MW of gas turbine capacity to be installed at a site in Talkha. Gas turbine capacity was dictated by the urgent need to place the capacity in service in a relatively short-time period to meet anticipated capacity shortfalls in 1979. An assessment of the environmental impact on the surrounding areas of the construction and operation of these two plants revealed no adverse effects. Gilbert Associates was selected by EEA to serve as its Consultant. Commonwealth Associates prepared the IFB for the supply and installation of the 300MW's of gas turbine capacity. Six companies were selected through prequalification to submit proposals for the "turnkey" contract for the supply and installation of the gas turbines. Proposals were evaluated and General Electric Company was selected as the "turnkey" contractor. General Electric accepted the sites at Helwan and Talkha and over the following 18 months installed the gas turbines, 120MW at Helwan and 180MW at Talkha. Operation and maintenance personnel were trained and spare parts to support the two plants were provided. USAID monitored the installation through monthly field inspections and verified that the

installations were completed according to the terms of the Loan Agreement and the purchase contract.

3. SUMMARIZED PROJECT HISTORY

In August 1974, the Ministry of Electricity and Energy (MOEE) completed a study of the generating capacity requirements for the period 1975 through 2000 based upon anticipated load growth. A more detailed study of the thermal generation required by the Unified Power System for the period 1975 through 1984 was completed in April 1975. Based on this study, the MOEE requested USAID's assistance in financing the foreign exchange costs for the supply and installation of a 120MW gas turbine plant at Helwan and the construction of other base load thermal capacity.

In response, AID selected Sanderson & Porter, Inc. (S&P) to supply Architect/Engineer Services of a short-term nature on a quick response basis under Requirements Contract No. AID/otr-C-1305 which had been executed on January 6, 1975. Work Order No. 3 of the Contract was issued on September 3, 1975, and provided for S&P to review and analyze the load projections and construction plans of the Unified Power System.

A team of S&P engineers working with General Egyptian Electricity Corporation (GEEC) engineers collected background data on the existing Unified Power System and the generation and transmission expansion plans from which the economic and technical feasibility of the planned generation expansion program was evaluated. S&P concluded its review and analysis and submitted a final report to USAID on November 26, 1975.

The S&P report concluded that the GEEC load projections did not realistically project future load growth. A more realistic load forecast, based upon S&P's experience in other developing countries with similar economic and energy demand conditions, was developed jointly by S&P and GEEC and formed the basis for assessing the adequacy of proposed construction plans and recommendations for construction program modifications.

Based on the modified GEEC load forecast, the following recommendations were presented in the report.

1. High priority should be given to the installation of a 120MW gas turbine plant at a site in Helwan. Cost for the construction of the Helwan plant was estimated at U.S. Dollars 20.1 million and LE 1.6 million.

2. An additional 180MW gas turbine plant should be installed at a site in Talkha available for commercial operation by late 1978. Cost of the construction of the Talkha plant was estimated at U.S. Dollars 29.9 million and LE 2.4 million.
3. The invitation for bid documents for the Helwan gas turbine plant and Talkha gas turbine plant should either be combined or the Talkha plant should be a price option in the Helwan bid thereby reducing the overall cost of both plants.
4. GEEC should utilize the services of a consulting engineering firm to aid in the preparation of specifications, analysis of bids and award of contracts, inspection and expediting of materials and general supervision of the engineering and construction phases of the two plants' construction to be completed by late 1978.

In early 1976, S&P were requested to perform an Environmental Review of the proposed Helwan and Talkha plant sites to assess the environmental impact upon the area adjacent to the proposed plant sites during construction and operation of the two power plants. Work Order No. 6 of Requirements Contract No. AID/otr-C-1305 was executed on March 5, 1976, and provided for S&P to complete the review, to be very brief in nature due to the short period of time available, that would fulfill the requirements for project authorization. The report, submitted to USAID on May 12, 1976, concluded that construction and operation of the two proposed gas turbine plants would have no significant adverse effects upon the environment.

Based upon S&P's recommendations for the installation of the gas turbines at Helwan and Talkha estimates of funds required to finance the procurements and installations and the environmental assessment, a Project Paper was prepared and a Loan Authorization was approved by the AID Administrator on June 29, 1976.

The Project Loan Agreement was signed on July 31, 1976. The Loan provided Fifty Million U.S. Dollars (\$50,000,000) to finance the foreign exchange costs for the construction of the 120MW gas turbine plant at Helwan and the 180MW gas turbine plant near the city of Talkha adjacent to an existing thermal power station.

Recognizing the urgency of the construction program, a synopsis of the Scope of Work for consultant services was published in Commerce Business Daily on April 19, 1976 for prequalification of

Architect/Engineering firms who would serve as consultants to EEA . Specific duties of the consultant would include

preparation of specifications, analysis of bids and award of contracts, inspection and expediting of materials and general supervision of the engineering and construction of the gas turbine plants. As a result, 17 firms submitted prequalification data for evaluation by the closing date of May 18, 1976. EEA submitted the results of its evaluation and selected of qualified firms to USAID on June 5, 1976. USAID concurred in the selection of four qualified firms on June 29, 1976 and the Request for Technical Proposal (RFP) was issued to those firms on July 6, 1976.

Proposals were opened on August 26, 1976 in Cairo, and extensively evaluated by EEA. EEA submitted its request for USAID's approval of the award of a contract to Gilbert Associates, Inc. on October 2, 1976. USAID approved the contract award to Gilbert Associates, Inc. on October 7, 1976, and EEA notified Gilbert Associates of its selection on October 15, 1976. Contract negotiations between EEA and Gilbert Associates began on October 20, 1976 and were completed on December 12, 1976. The contract was approved by the EEA Board of Directors on December 20, 1976. The contract was signed on January 5, 1977 and approved by AID on February 24, 1977. The Egyptian Pound Letter of Credit was issued on April 4, 1977 and the U.S. Dollar Letter of Credit was issued on April 8, 1977.

Gilbert Associates executed a subcontract with Giza Systems in March, 1977 to provide local technical services and logistical support at an estimated contract amount of L.E. 169,200. The subcontract was approved by USAID on March 29, 1977.

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(1) On February 12, 1976, Law No. 12/1976 became operative creating the Egyptian Electricity Authority (EEA) superseding GEEC.

The initial funding for the Gilbert Associates contract was U.S. \$1,854,300 and L.E. 169,200. The contract was amended on July 22, 1980 to incorporate the expanded scope of work requiring additional engineering and contract time extension at an estimated cost of U.S. \$2,034,300 and L.E. 255,250. At the time the amended contract was completed, Gilbert Associates had expended \$2,019,614.

Gilbert Associates, working with EEA, prepared the Preliminary Project Report describing the site parameters and facilities, technical requirements, environmental considerations, operation and maintenance training requirements, and spare parts, contractual obligations, schedules and cost estimates and cash forecasts, for the two gas turbine plants. The report was formally issued on August 10, 1977. The preliminary cost estimate for the 120MW gas turbine plant at Helwan was U.S. \$27,200,000 plus L.E. 1,329,500. The cost estimate for the 180MW gas turbine plant at Talkha was U.S. \$39,355,000 plus L.E. 1,596,400 resulting in a combined cost for the two plants of \$66,555,000 and LE 3,925,900.

The Loan Agreement states that the GOE would provide any funds needed in addition to the Loan for the installation of the two plants. The GOE was financially unable to comply with this requirement and was unable to obtain financial assistance from other sources and, on July 17, 1977, requested AID to amend the Loan Agreement by increasing the loan amount by \$19,000,000. The Project Paper recommending an increase in the loan amount was prepared and the First Amendment to the Loan Authorization was approved by the AID Administrator on September 26, 1977. The First Amendment to the Loan Agreement was signed on September 30, 1977. The Amendment provided an additional \$19,000,000 to finance the foreign exchange costs for the installation of the two plants.

The Loan Agreement provided that the loan would be repayable in U.S. dollars over forty years, including a ten-year grace period, at an annual interest rate of two percent during the grace period and at three percent during the principal repayment period.

The Loan Agreement also provided that the loan amount would be re-loaned by the Arab Republic of Egypt to the Egyptian Electricity Authority on terms and conditions acceptable to AID. The Reloan Agreement, signed on September 30, 1977, provided for repayment to the GOE over twenty-five years including a five-year grace period at an interest rate of eight and one-half percent per annum.

The Scope of Work of the Contractor set forth the following general description of the project:

1. The work would include the designing, fabricating, furnishing, constructing, installing, testing, training and startup services, and spare parts for two gas turbine electric power generating plants. The extent of the work would include the complete generating plant at Helwan, and the complete generating plant and 220KV substation extension at Talkha.

a. The gas turbine units would be rated at I.S.O. conditions (15°C, sea level), 50Hz and base firing level on Solar oil (No. 2 fuel oil). The individual units would have a minimum rating of 22MW or a maximum rating of 33MW.

(1) The Helwan plant would have a rating of 120MW ± 10 percent, with a minimum of 4 units.

(2) The Talkha plant would have a rating of 180MW ± 10 percent, with a minimum of 6 units.

The gas turbine units would be capable of operating at the peak load firing level. The plant capacity would be limited by the turbine power capability.

b. Each gas turbine would be a simple cycle prepackaged electric power generating plant with all required auxiliaries. These units would operate 4,000 continuous hours per year and 30 starts per year while firing on natural gas with Solar oil (No. 2 fuel oil) as an alternate fuel. The gas turbines would be capable of being converted for firing Mazout oil (No. 6 fuel oil) in the future.

2. Layout at Helwan.

a. The Helwan gas turbine power plant would be a new facility occupying the northwestern portion of the proposed site. The Helwan plant would be a complete self-supporting power plant including fuel oil storage, gas compressor station, fire protection, service building facilities and guard house.

b. The Helwan plant entrance would be located along Msaged Street. The plant roadway would extend onto the site providing access to the gas turbines, the service building and the fuel oil unloading area. The generating units would occupy the northern corner of the site with the fuel storage facilities on the western corner of the site. This arrangement would allow future expansion in the

southeasterly direction. The generator end of the units would face Msaged Street. The step-up transformers would be connected to the generators via above-ground cable bus and to the substation by use of cable located in the underground trench and duct banks. The service building and fire water storage tanks would be located between the generating units and the fuel storage area. The service building would include facilities for turbine-generator control, plant maintenance, site utilities, and administration. The building would be oriented so that the control room would face the generating units.

- c. The oil storage area would be located in the rear of the site with two separate tank farms, each encircled by an earthen dike. The Solar oil (No. 2 fuel oil) unloading area would be located between the two dikes. The roadway between the dikes and encircling the lower dike would allow the fuel oil trucks to unload and leave the site without need for a turnaround area.

3. Layout at Talkha

- a. The Talkha gas turbine power plant would be an addition to the existing thermal power plant. The addition would be a complete self-supporting power plant including the extension of the existing 220KV switchyard. Fuel storage and unloading, fire protection, and service building facilities would be included in this addition.
- b. Permanent access to the gas turbine plant would be provided by an extension to the existing plant roadway which would extend into the site along the existing cooling water canals to the service building. The building would be arranged to provide a facility for turbine-generator control, plant maintenance, site utilities, and site administration. The service building would be oriented so that the control room faced the generating units, which would be located in a parallel line directly in front of the service building with an underground control and instrumentation trench running perpendicular to the longitudinal axis of the gas turbines. The generators would be connected to the step-up transformers through an above-ground cable bus. The transformers would be located at the entrance to the switchyard area. Fire walls would be installed between the middle transformer and the side transformers.

- c. The fuel oil storage area would be located adjacent to the existing tree-lined wall which borders the existing tank farm area. The oil tanks and forwarding stations would be encircled by an earthen dike.
- d. A new fuel oil unloading facility located near the existing tank farm would be added to service the new plant.

A synopsis of the Scope of Work for the "turnkey" installation of the two gas turbine was published in Commerce Business Daily on June 16, 1977 for prequalification of bidders. Of the twenty-eight firms requesting prequalification questionnaires, only eleven firms submitted completed forms for evaluation by the closing date of July 31, 1977. Gilbert Associates and EEA jointly evaluated the eleven submissions received. EEA submitted its evaluation report and ranking of firms to USAID on August 28, 1977 requesting USAID's approval of the six firms with the highest overall rating. USAID approved the selection of the six qualified firms on August 31, 1977.

The Invitation for Bid (IFB) document setting forth the contract terms and administration, technical design parameters, installation and startup requirements, equipment services and construction requirements, drawings and document requirements was approved by USAID on September 1, 1977 and was issued to the selected bidders on September 13, 1977.

A pre-bid conference was held in the Gilbert Associates offices in Reading, Pennsylvania on October 11, 1977. Bids were opened in Cairo, Egypt, on January 7, 1978. Gilbert Associates and EEA independently evaluated the bids over the next two and one-half months. Gilbert Associates submitted its bid Evaluation and Recommendation for Award to EEA on February 13, 1978. EEA submitted its request for USAID's approval to award the contract to General Electric Company on March 27, 1978. USAID approved the contract award to General Electric Company on April 25, 1978. A draft contract was prepared and contract negotiations between EEA, Gilbert Associates and General Electric began on May 7, 1978 and were completed and the contract was signed by General Electric Company on May 17, 1978. The contract was approved by the AID on May 25, 1978. The contract was signed by EEA on June 3, 1978. The initial funding for the General Electric Company "turnkey" contract was for U.S. \$56,004,000 and LE 7,131,000. The contract was amended on eleven occasions to incorporate changes in site conditions, scope of work, purchase of spare parts and extension of the warranty period. At the time the amended contract was completed, GE contract price was \$64,901,173. The U.S. dollar and Egyptian pound letters of



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Credit were issued to General Electric on July 12 and July 27, 1978, respectively.

The contract stipulated that the Helwan Plant would be completed within 510 days (17 months) and the Talkha Plant completed within 600 days (20 months) from the date of opening of the Letters of Credit.

Following the contract signing, EEA, Gilbert Associates and General Electric agreed upon basic procedures related to General Electric project staffing, correspondence and communications, drawing distribution, expenditure reporting and forecasting and contract modification procedures.

The first engineering designs for the two plants were issued for Gilbert Associates' review and approval beginning in late June 1978.

On October 4, 1978, the Helwan and Talkha plant sites were turned over to General Electric but actual construction activity did not commence until mid-November, 1978. The delivery of gas turbines and generators and the 66KV/11KV transformers to the respective sites was completed in June 1979.

Helwan units 1 through 5 were provisionally accepted and placed in commercial operation on December 23, 1979, 514 days after receipt of the Letter of Credit.

Talkha units 1 through 6 were provisionally accepted and placed in commercial operation on December 25, 1979, 516 days after receipt of the Letter of Credit. Talkha units 7 and 8 were provisionally accepted and placed in commercial operation on March 18, 1980, 599 days after receipt of the Letter of Credit.

Final Acceptance of the Helwan and Talkha Combustion Turbine Plants occurred on November 13, 1980 with the warranty period to expire on November 13, 1981.

During the first year of operation of the Talkha Plant, the Fuel Oil storage tanks were found to be settling, and while the settlement was not considered serious, continued settlement or settlement and tilting would pose serious problems. General Electric and its soils consultant Ramout Inc. established a monitoring program to assure accurate measurements of each tank's movement and over a five-month period, concluded that settlement was stabilizing within acceptable limits and there was no indication of tank tilt. General Electric extended the Fuel Tank Warranty to

November 13, 1982 and during this period will continue to measure tank settlement and, if necessary, take appropriate action to correct excessive settlement or tilting.

It had been the intention of EEA to operate the Talkha gas turbines on natural gas and they had advised USAID on numerous occasions that adequate gas supplies were available. However, approximately 55 percent of the generation in 1980 was from Solar (No. 2 Oil) due to inadequate gas pipeline capacity. In September, 1980 EEA advised USAID that additional gas pipe capacity was being constructed to serve the Talkha gas turbines as well as an adjacent fertilizer plant.

The gas turbines met a critical need for the supply of electrical energy to the Unified Power System. During the first full year of operation, the two plants generated 56% of their rated output capacity, well above normal utility dependence on gas turbine capacity.

Training of operators and maintenance personnel consisted of formal classroom training at the General Electric Field Engineering Development Center in Schenectady, New York and on-the-job training at sites in Egypt. The training took place over the period June thru October 1979. A total of forty personnel were trained.

General Electric supplied spare parts necessary to support the two plants over the first five years of operation. The supply of the agreed upon spare parts was delayed until agreements could be reached concerning transportation expense, resulting in prolonged operation of the gas turbines without adequate spare parts inventories. Spare Parts shipments were completed in October 1981.

4. BENEFICIARIES, DIRECT AND INDIRECT

The direct beneficiaries of the Helwan and Talkha gas turbine plants were the residents in the areas surrounding these plants and the existing, and new, commercial and industrial customers that are being served with energy.

The indirect beneficiary of the Helwan and Talkha gas turbine plants was the Government of Egypt whose economy was bolstered by the additional generating capacity which permitted the development of commercial and industrial activities throughout Egypt.

5. LESSONS LEARNED

A. While the modified load forecast prepared jointly by Sanderson and Porter and the General Egyptian Electricity Corporation produced a forecast more appropriate to the developing Egyptian economy, it fell considerably short of actual loads and the 300MW of gas turbine generation had to be supplemented by an additional 100MW of gas turbines installed at other locations. The load forecasting techniques utilized by EEA deserve further sophistication since it is these load forecasts which dictate the generating capacity requirements and capital expenditures requirement over the long term.

B. The Helwan and Talkha gas turbine project was undertaken to provide generating capacity to alleviate a critical shortage in the Unified Power System. AID responded to the need and over the next 56 months verified the need for the capacity, provided funding for a consultant and a "turnkey" contractor to manufacture and install the gas turbines. This time period appears to be reasonable considering AID procurement procedures. Major time periods included consultant selection procedures requiring 8 months, turnkey contractor selection procedures requiring 12 months and actual plant construction required 18 months. However, 56 months seem like an unreasonably long time for a "crash program" with 68% of the time consumed in verification and procurement procedures.

C. The Helwan Plant was designed for future installation of additional gas turbines. The site is ideally situated on the southern side of Cairo and has the necessary common facilities available to permit a significant compression of a future project installation schedule.

D. The Talkha Plant was designed for future conversion to a combined cycle plant, utilizing the heat from the turbine exhaust gases to convert water to steam in a more conventional steam boiler to power a steam turbine generator. The economics of this possible expansion of the Talkha Plant have not been calculated.

E. The Administrative buildings with storerooms for spare parts and a machine shop equipped to handle all but the most complex repairs were significant additions to the EEA plants. It has been recommended that these facilities be used as regional service centers for other gas turbines in the Unified Power System.

F. EEA experienced significant problems opening Letters of Credit. These Letter of Credit problems delayed the effective date

of the contracts. The same inability to establish a proper Letter of Credit still exists within EEA.

6. REVIEW OF WARRANTIES AND PROJECT COVENANTS

- A. The Loan Agreement set forth two sets of conditions precedent to be met before project funds could be disbursed to finance the services of a consultant engineer. The conditions precedent were:
- (a) An Opinion of the Minister of Justice or of other counsel acceptable to AID, that the Loan Agreement had been duly authorized and/or ratified, and executed on behalf of, the Borrower and EEA, and that it constituted a valid and legally binding obligation of the Borrower and EEA in accordance with all of its terms.
 - (b) A statement of the names of the persons authorized to represent the Borrower and EEA and a specimen signature of each person.
 - (c) Evidence that satisfactory arrangements had been made among the pertinent government agencies and entities to carry out, operate and maintain the project as planned.
 - (d) Evidence that the proceeds of the Loan would be reloaned to EEA at an interest rate conforming to Egyptian law.
 - (e) An executed contract for consulting engineering services for the Project with a firm acceptable to AID.
 - (f) Such other documentation as AID required.

Conditions precedent (c) and (d) were subsequently transferred to the second set conditions precedent by Loan Amendment approved by the Assistant Administrator - NE on January 21, 1977.

The initial conditions precedent, as amended, were fulfilled and by Implementation Letter No. 3, dated February 23, 1977, AID advised EEA that funds were released to finance the services of a consultant engineer.

The second set of conditions precedent, including the two transferred conditions, were:

- (a) Evidence that all Egyptian currency required for the first fiscal year, in which funds would be required, in an amount based on the estimate of the consulting engineer, and as approved by FEA, had been budgeted by the Borrower and were available for expenditure by FEA.
- (b) An executed contract for the supply, erection, construction and related services of gas turbine generator plants at Helwan and Talkha.
- (c) Evidence that EEA had obtained, from the Cairo Municipal Authority, full title to the Helwan plant site.
- (d) Evidence that EEA had acquired, by purchase or condemnation, full title to the additional land required for the Talkha plant site, in accordance with the consulting engineer's recommendation.
- (e) Evidence that satisfactory arrangements had been made among the pertinent government agencies and entities to carry out, operate, and maintain the project as planned.

These conditions precedent were complied with and by Implementation Letter No. 6, dated June 9, 1978, AID advised EEA that funds were released for financing the U.S. Dollar cost of EEA'S contract with General Electric Company.

B. GENERAL COVENANTS AND WARRANTIES

The Loan Agreement established the following General Covenants and Warranties:

1. Required the Government to carry out the Project with due diligence and efficiency assuring prompt and effective utilization of the materials, equipment and services financed in conformity with sound engineering, construction and administrative practices.
2. Required the Government to provide promptly, as required, all funds in addition to the Grant necessary for the prompt and effective implementation of the project.
3. Provided for the periodic review of the project progress and performance of the Parties and review with AID of the recommendations contained in the UNDP Power Sector Survey.

4. Required the Government to provide adequate long-term financing of the EEA's expansion program with the financing divided between equity and loans so that the ratio of debt to equity would reach specified target ratios.
5. Required that the funding from the Loan Agreement would be relent to EEA at an interest rate in conformance with the law establishing EEA.
6. Required the Government to provide a trained and experienced staff for the Project.
7. Required the Government to manage the installation operation and maintenance of the two plants to ensure their availability and operability to meet the needs of the Unified Power System.
8. Required that all equipment and services financed under the Loan be exempt from taxes, tariffs, duties and other levies.
9. Stipulated that USAID be advised of material and equipment received and installed and that records would be maintained of the receipt and use of materials and that any material found to be surplus upon completion of the project would be disposed of after receiving AID's approval.
10. Required the Government to promptly advise AID of any circumstances which could affect or effect this loan.
11. Required that the Government warrant and covenant that no payments would be made or received by Government of other officials in connection with the procurement of goods and services.
12. Required the GOE to maintain records and books related to this Loan Agreement indicating the receipt and use of materials.
13. Required th Government to provide USAID information and reports related to the Loan and to the Project.
14. Provided that AID would perform inspection trips to the various sites throughout the life of the Project.
15. Provided that no additional GOE approvals would be required for issuance of investment guaranties covering contractor's investment in the Project.

Throughout the execution of the project, EEA complied with all General Covenants and Warranties.

7. POST-DISBURSEMENT REPORTING AND RESIDUAL MONITORING REQUIREMENTS

EEA will report on the fuel oil storage tanks settlement problem at Talkha and actions being taken by General Electric Company to correct or stabilize the tank settlement. As the two plants are in commercial operation, all spare parts have been delivered to the respective plants and training of operation and maintenance personnel has been completed, no further reporting will be required.

8. SUMMARY OF FINANCIAL STATEMENT

The Agency for International Development (AID), committed a loan of \$69,000,000 to the GOE for this project, however, expenditures totalled only \$66,920,787.23. On February 22, 1982, EM/BFD was requested to reconcile the L/Comm balances and transfer any residual balances to uncommitted status. The USAID Controller was requested to deobligate the uncommitted balance of \$2,079,212.77.

SUMMARY OF EXPENDITURES

Loan Amount
\$69,000,000.00

Gilbert Associates \$ 2,019,514.02
(engineering services contract)

General Electric \$64,901,173.21
(supply/installation contract)

Total Expenditures
\$66,920,787.23

Excess to be deobligated \$ 2,079,212.77

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