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AUDIT OF
CAIRO SEWERAGE II
USAID/EGYPT PROJECT NO. 263-0173
Audit Report No. 6-263-87-13
September 30, 1987

UNITED STATES GOVERNMENT
memorandum

DATE: September 30, 1987
REPLY TO: *W.C. Spat*
ATTN OF: William C. Spat, RIG/A/Cairo (A)
SUBJECT: Audit Of Cairo Sewerage II
USAID/Egypt Project No. 263-0173
TO: Mr. Marshall D. Brown, Director USAID/Egypt

The Office of the Regional Inspector General for Audit/Cairo has completed its audit of Cairo Sewerage II, USAID/Egypt Project No. 263-0173. Ten copies of the audit report are enclosed for your action.

The draft audit report was submitted to USAID/Egypt for comment and those comments are attached to the report. The report contains two recommendations. Based on USAID/Egypt's response, both recommendations are considered closed and require no further action.

I appreciate the cooperation and courtesy extended to my staff during the audit.

Background

The Cairo Sewerage II project is part of a comprehensive master plan developed by American British Consultants (AMBRIC), an engineering consultant, and the Cairo Wastewater Organization (CWO), the GOE implementing agency. Cairo Sewerage II involves a 10-year program (1984-1994) to expand and improve the wastewater system on the Cairo West Bank and assure its proper operation and maintenance. It is designed to provide a comprehensive solution for widespread problems of a system that had deteriorated to a severe state of disrepair and inadequacy.

This project follows the nearly completed Cairo Sewerage I project, which was developed in 1978 as an initial step to improve sewer maintenance and existing facilities.

The Cairo Sewerage II was approved in September 1984 for \$816 million. As of March 1987, the project had obligated \$421.8 million from a \$555-million authorization for

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financial requirements through fiscal year 1987. Future authorizations are dependent on the CWO's ability to maintain the current implementation schedule, satisfactory progress toward mutually agreed goals, and the availability of funds.

AMBRIC is the technical consultant for the project and under a contractual arrangement with CWO is responsible for engineering supervision of construction. Until May 1987, AMBRIC subcontracted with a local firm, Egyptian Consultants (EGYCON), to assist in construction and inspection activities.

As of March 1987, USAID/Egypt had committed about \$154 million for project activities consisting of four AID financial contracts, and the AMBRIC consulting engineer contract. Total actual disbursements were about \$20 million.

Audit Objectives And Scope

The Office of the Regional Inspector General for Audit/Cairo made a limited-scope, economy and efficiency audit of the Cairo Sewerage II Project No. 263-0173. The audit objective was to determine whether project resources provided by USAID/Egypt were efficiently and effectively managed in accordance with AID regulations, policies, practices and project documents. The audit focused on project implementation and construction progress. Audit work was performed between April and July 1987.

As of July 1987, most project activity consisted of design and construction supervision by AMBRIC and construction work by four U.S. contractor firms. The audit examination was limited to the performance of AMBRIC and two of the construction contractors. Problems with the AMBRIC contract were significant enough, in the RIG/A/Cairo's view, to warrant bringing them to management's attention.

The audit included a review of project documents, records, and reports at USAID/Egypt and AMBRIC field sites. It also included inspection of work-in-progress at construction sites on the Cairo West Bank. Discussions were held with USAID/Egypt and AMBRIC management officials, and construction site engineers. The review of internal controls and compliance was limited to the finding presented in this report. The audit was made in accordance with generally accepted government auditing standards.

Results Of Audit

The audit showed that problems existed in project implementation and construction progress. AMBRIC was operating with a limited staff, which placed a strain on its ability to inspect and certify construction work. Also, AMBRIC was constrained by insufficient financial resources (Egyptian pounds) because the Government of Egypt withheld payments to AMBRIC since July 1986.

AMBRIC's Ability To Inspect And Certify Construction Work Was Hindered - American British Consultants lacked adequate resources to sufficiently perform required construction management and supervision services for Cairo Sewerage II construction due to problems associated with a subcontractor and the Government of Egypt (GOE). The Cairo Wastewater Organization (CWO), the GOE implementing agency, arbitrarily delayed the approval of needed EGYCON technical field staff, and withheld payments to AMBRIC for EGYCON's services. This situation adversely affected AMBRIC's work performance, and ability to certify completed construction. Although AMBRIC hired a new local subcontractor in July 1987, the problem of insufficient trained supervisory staff remains.

Discussion - In mid-1985, the Cairo Wastewater Organization negotiated a contract with AMBRIC to provide supervision services for four construction contracts in the Cairo Sewerage II project. Egyptian Consultants (EGYCON), a technical services consortium, was hired by AMBRIC as a local subcontractor to assist in inspection activities. Meanwhile, due to an apparent conflict between the GOE and EGYCON, the CWO asked AMBRIC to terminate its subcontract with EGYCON. However, AMBRIC was reluctant to terminate their relationship with EGYCON because the subcontractor's technical services were satisfactory, and there was no legal basis for subcontract termination. According to AMBRIC, the subcontract conflict resulted in frozen staffing for ongoing projects, withheld local currency payments, and delayed work order approvals.

In April 1986, the GOE had placed a freeze on additional EGYCON personnel needed by AMBRIC to carry out construction design and inspection work. Along with the freeze on personnel, the CWO withheld local currency (LE) payments of AMBRIC vouchers. AMBRIC in turn, withheld payments to EGYCON. As of April 1987, the GOE was LE7.7 million (about \$3.5 million) in arrears to AMBRIC, which owed LE4.9 million (about \$2.2 million) to EGYCON.

In a March 1987 progress report, AMBRIC mentioned that the continuing lack of payment to AMBRIC for services performed resulted in EGYCON reducing its staff salaries by 50 percent, and had a demoralizing effect on the Egyptian employees with a further adverse effect on performance. AMBRIC also reported that there was an increasing risk of a major project disruption due to the continuing lack of resolution of the local subconsultant problem.

On April 26, 1987, AMBRIC notified the GOE that EGYCON would withdraw all its staff, as of May 1, 1987, due to nonpayment. The CWO subsequently instructed AMBRIC to terminate EGYCON's subcontract. AMBRIC gave termination notice to EGYCON on May 13, 1987, effective 30 days from the date of suspension of EGYCON services.

While the internal hiring freeze of EGYCON personnel adversely affected AMBRIC's ability to provide engineering services, the withdrawal of all EGYCON staff increased the strain. In April 1987, AMBRIC indicated that AMBRIC staff were hardly able to provide construction supervision of the West Bank due to staff terminations, including EGYCON staff. Consequently, AMBRIC considered suspending supervision, or delaying work on several contracts.

At the time of the subcontract termination (May 1987), EGYCON had a staff of 12 that were providing technical services for AMBRIC, but actually they needed 25 additional staff to carry out required work. Further, AMBRIC anticipated a future need for seven more staff members.

An example of the staff shortages was evident at one construction project where AMBRIC requested four civil inspectors, a quantity engineer, and a clerk to assist the expatriate staff. None of these positions were approved by CWO, and only one civil inspector and a secretary were assigned to this project. At a second construction site a local staff shortage also existed. AMBRIC had requested CWO approval of six civil inspectors, a quantity engineer, and a secretary. However, no EGYCON staff were provided for inspection and engineering services at this site.

In summary, the conditions described indicate that construction work financed by AID may not have been properly inspected, supervised and certified, and design work was delayed for planned construction. Although a new consultant contract with another local firm was finally signed on July 20, 1987, shortages of trained local technical staff remained.

Recommendation No. 1

We recommend that USAID/Egypt determine whether the project construction work certified by AMBRIC for payment of USAID/Egypt funds has been appropriately supervised, inspected, and certified.

Recommendation No. 2

We recommend that USAID/Egypt evaluate the local and expatriate staffing situation at AMBRIC and ensure adequate provision is made for supervision, inspection, and certification of project construction work.

USAID/Egypt's Office of Development Resources (DR) replied that their staff routinely visits construction sites and frequently participates in project meetings as part of their overall project administrative responsibilities. However, when AMBRIC encountered contractual difficulties, project management focused on AMBRIC's ability to supervise work. Accordingly, it was the professional judgement of DR project management that the work certified was done in accordance with the standards of the different contracts. Further, DR management believes that a newly approved contract amendment for AMBRIC will allow sufficient staffing to satisfactorily supervise the AID-financed West Bank construction work. The full text of USAID/Egypt's response is attached to this report as Appendix 1.

In view of the actions taken by USAID/Egypt, Recommendation Nos. 1 and 2 were closed upon issuance of this report.

memorandum

DATE: September 24, 1987

APPENDIX 1

REPLY TO
ATTN OF: DR/UAD, Michael S. Gould

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SUBJECT: RIG Audit Report
Cairo Sewerage II (263-0173)

TO: AD/FM, W. Miller

THRU: OD/UAD, Hasan A. Hasan
AD/DR, Fred A. Zobrist

The subject draft report has been reviewed by the project office and we believe that the information contained in the report is accurate and the conclusions and recommendations are sound.

We are pleased to report that action has already been taken which responds to the two explicit recommendations the report contains:

Recommendation No. 1: Determine whether the project construction work certified by AMBRIC for payment of USAID/Egypt funds has been appropriately supervised, inspected and certified.

Action Taken: This office routinely visits the construction sites and participates systematically in frequently held contractor/engineer/owner construction meetings. This is considered as part of our responsibilities and forms the basis of the project officer's administrative approval of invoices. In addition, the office director (DR/UAD) and the associate director (AD/DR) also make occasional trips to the work sites. These individuals including the writer are registered professional engineers with considerable experience in construction and sanitary/civil engineering. The project office is also staffed with two senior FSN engineers, one of which who holds a doctorate in engineering.

Since AMBRIC has encountered contractual difficulties, the individuals mentioned above have focused on the ability of AMBRIC to supervise the work. This has been done not only because of the need for sound AID project management but also because effective construction management/supervision by AMBRIC is a condition precedent contained in the project agreement. Although AMBRIC has encountered severe difficulties and must be viewed as handicapped in performing their scope of services, it is our professional judgement that the work certified for payment has been executed in accordance with the standards called for by the provisions of the different contracts.

Recommendation No. 2: Evaluate the local and expatriate staffing situation of AMBRIC and ensure adequate provision is made for supervision, inspection and certification of project construction work.

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Action Taken: AMBRIC submitted an amendment to Cairo Wastewater Organization (CWO) on 14 May 1987 which provides for construction supervisory services through 1990 covering both expatriate and local staff. The DR/UAD project office has reviewed this amendment and believes that the staffing levels provide satisfactory coverage for the AID-financed West Bank construction work. This amendment has been approved by CWO staff, the CWO Board of Directors and the Minister. The Amendment 36 was signed on 24 September 87 by AMBRIC and CWO.

Other: The draft audit report has also make some suggestions concerning site acquisition and problems associated with contract 20. At this juncture there are no site acquisition problems, existing or anticipated. Contract 20 will continue to be closely monitored.

Based on the above information concerning actions taken and events which have occurred since the RIG Audit, we believe that the recommendations should be closed upon issuance.

(Drafted:DR/UAD:MGould:vg:9/20/87(ID#AUDITREP)

Conan Bill Miller 9/27/87

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