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Audit of
the Aswan High Dam Power
Station Rehabilitation
and Modernization
Project No. 263-0160

Audit Report No. 6-263-89-4
February 21, 1989

UNITED STATES OF AMERICA
AGENCY FOR INTERNATIONAL DEVELOPMENT
OFFICE OF THE REGIONAL INSPECTOR GENERAL/AUDIT

February 21, 1989

MEMORANDUM FOR D/USAID/Egypt, Marshall D. Brown

FROM: RIG/A/C, F. A. Kalhammer *F. A. Kalhammer*

SUBJECT: Audit of the Aswan High Dam Power
Station Rehabilitation and Modernization
Project No. 263-0160

This report presents the results of the above-mentioned audit. Please note that it contains one recommendation which is closed with the issuance of the report. I appreciate the cooperation and courtesy extended to my staff during the audit.

Background

The Aswan High Dam Power Station Rehabilitation and Modernization Project was initially authorized at \$100 million in April 1982 by a grant agreement between the Government of Egypt and USAID/Egypt. The dam was originally constructed and equipped as a Soviet aid project to Egypt during the 1960's. The project is intended to accomplish the design, manufacture and replacement of 12 hydro-turbine runners, circuit breakers, and relay and control instrumentation at the High Dam power station. Turbine runner design, fabrication and replacement are the principal project components, under the responsibility of Voith Hydro Inc. (formally Allis Chalmers) through a host country contract with the GOE implementing agency, the Egyptian Electricity Authority (EEA). The U.S. Bureau of Reclamation is assigned as the technical advisor to EEA to oversee the implementation of the project.

In September 1987, the project was authorized an additional \$40 million mainly to complete instrument modernization, circuit replacement, and gate rehabilitation. Throughout the project life, EEA was supposed to pay all local currency costs which are expected to total over 28 million Egyptian

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pounds, or about \$12 million at the current rate of exchange. As of December 1988, project expenditures were about \$73 million.

Audit Objectives and Scope

The Office of the Regional Inspector General for Audit/Cairo made an economy and efficiency audit of the Aswan High Dam Power station Rehabilitation and Modernization Project (No. 263-0160). The purpose of the audit was to survey whether several project activities were implemented in accordance with AID regulations and Mission requirements. These activities included, but were not limited to: the justification of procurement actions for the project, the reasonableness of contract prices for work performed, compliance with grant requirements and covenants, accountability of host country contributions, and anticipated uses of authorized project funds.

The Aswan High Dam Power Station was visited during the audit, and discussions were held with Egyptian Electricity Authority officials. Additionally, discussions were conducted with USAID/Egypt and Bureau of Reclamation officials in Cairo, and project agreements and requirements were reviewed and analyzed along with available contractual documents, cost information and project files. As a result of pre-audit survey work, it was determined that further audit review was not necessary, except for a few issues which are presented herewith.

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

In general, the audit found that this was a well managed activity proceeding on schedule. To date, six new turbine "runners" (large bladed structures impelled by the force of water behind the Aswan High Dam) have been installed and the hydro-turbine generating units have been rehabilitated and returned to operation. Original procurement actions were on a sole-source basis which, insofar as the available documentation demonstrated, was thoroughly examined and appropriately justified by the A.I.D. Administrator in 1981. Also, given the unique circumstances leading to the replacement of the old runners, the costs of runner

installation, and generating unit disassembly, rehabilitation and reassembly were not fixed until after installation of the first pair of runners. We found no anomalies in this arrangement. The U.S. Bureau of Reclamation advisers to the Egyptian Electricity Authority had reviewed itemized cost elements and the quality of the contractor's workmanship throughout the course of this project. However, the audit showed that the Egyptian Electricity Authority had not submitted accounting reports for host country contributions to the Aswan High Dam Power Station Project as required by the grant agreement.

1. Required Reports Regarding Host Country Contributions to the Project Had Not Been Submitted - The Egyptian Electricity Authority (EEA) had not submitted required accounting reports documenting its contributions to the Aswan High Dam Power Station Project.

Mission Order 3-31 and the amended grant agreement, dated September 23, 1987, require the implementing agency to submit copies of accounting records for host country contributions to the project. However, the implementing agency did not accept the terms of the A.I.D. grant until May 1988, and the required quarterly reports had not been submitted as of January 5, 1989. Although the A.I.D. project manager had expected the Authority to send reports for the period ending September 1988, there was little concern because the Authority frequently delayed its report submissions. It was not until recently that the project officer communicated with EEA concerning its failure to report.

As a result, USAID/Egypt lacked the proper oversight mechanism to assure that EEA has fully complied with its host country contribution obligations to the project, nor is the exact amount of such contributions known.

Discussion - Mission Order 3-31, dated May 14, 1987, and a Special Covenant in the amended grant agreement, dated September 23, 1987, required the Government of Egypt, through the Egyptian Electricity Authority (EEA), to provide A.I.D. quarterly reports that accounted for local currency and in-kind contributions. The reports, however, had not been submitted. One reason was that the EEA did not accept the terms of the amended grant agreement until May 1988.

Although the project officer subsequently expected the accounting records from EEA for the three-month period ending September 1988, these records were not sent. At that time this was of little concern because EEA was usually at least 45 days late in submitting required reports, and submission of the accounting information was not considered a priority issue. It was not until November 22, 1988 that the project officer formally requested EEA to submit accounting reports for local currency contributions to the project. As of January 5, 1989 no reply had been received.

The Regional Inspector General for Audit/Cairo, in Report No. 87-04 on "Controls over Government of Egypt Contributions to USAID-Financed Projects in Egypt," dated March 12, 1987, found, among other problems, that some Egyptian Ministries had not met their project support commitments, and recommended improved accountability over host country contributions. While there are no known problems with EEA fulfilling its project support commitments, USAID/Egypt lacked necessary accounting information to maintain effective project oversight regarding EEA's contributions to the project.

Recommendation No.1

We recommend that USAID/Egypt formally notify the Egyptian Electricity Authority that it is in arrears in its financial reporting to A.I.D. and obtain the required reports in a timely fashion.

The above recommendation is closed with the issuance of this report. EEA has submitted local currency expenditures and in-kind contribution reports from project inception through December 1988, and stated that future reports will be submitted on a quarterly basis throughout the remainder of the project.

Other Pertinent Matters

Increased Funding for Energy Sector - In January 1987, USAID/Egypt adopted a Country Development Strategy Statement that contained a strong stance against further assistance to the power sector in the absence of significant electricity rate hikes. Notwithstanding, in September of the same year, USAID/Egypt approved a \$40 million increment to its Aswan Dam Rehabilitation project. The different aspects of this issue were fully discussed in an exchange of correspondence

between the Regional Inspector General for Audit and the Mission Director.

The reader is referred to pages 2 through 4 of USAID/Egypt's response for an explanation of its rationale on this subject which we have accepted. The explanation will also provide the reader with valuable insights into the many economic and political complexities which surround A.I.D.'s activities in Egypt.

Project Evaluation - Section 5.1 of the Project Agreement (special covenants) provided that the parties agreed to establish an evaluation program which would include: (a) evaluation of progress toward the objectives of the project; (b) identification and evaluation of problem areas or constraints which may inhibit such attainment; (c) assessment of how such information may be used to help overcome such problems; and (d) an evaluation, to the degree feasible, of the overall development impact of the project.

The project officer advised that the required evaluation program was not established because of a belief that the same results could be achieved through correspondence, meetings with EEA, and actual oversight by the technical consultant, the Bureau of Reclamation (BUREC).

Our review of project files and discussions with the project officer and a BUREC official indicated that substantial correspondence and documentation developed during the life of the project allowed adequate monitoring and detection of problems in project implementation. Whether these oversight activities met the project evaluation requirements in the grant agreement was not clear, however.

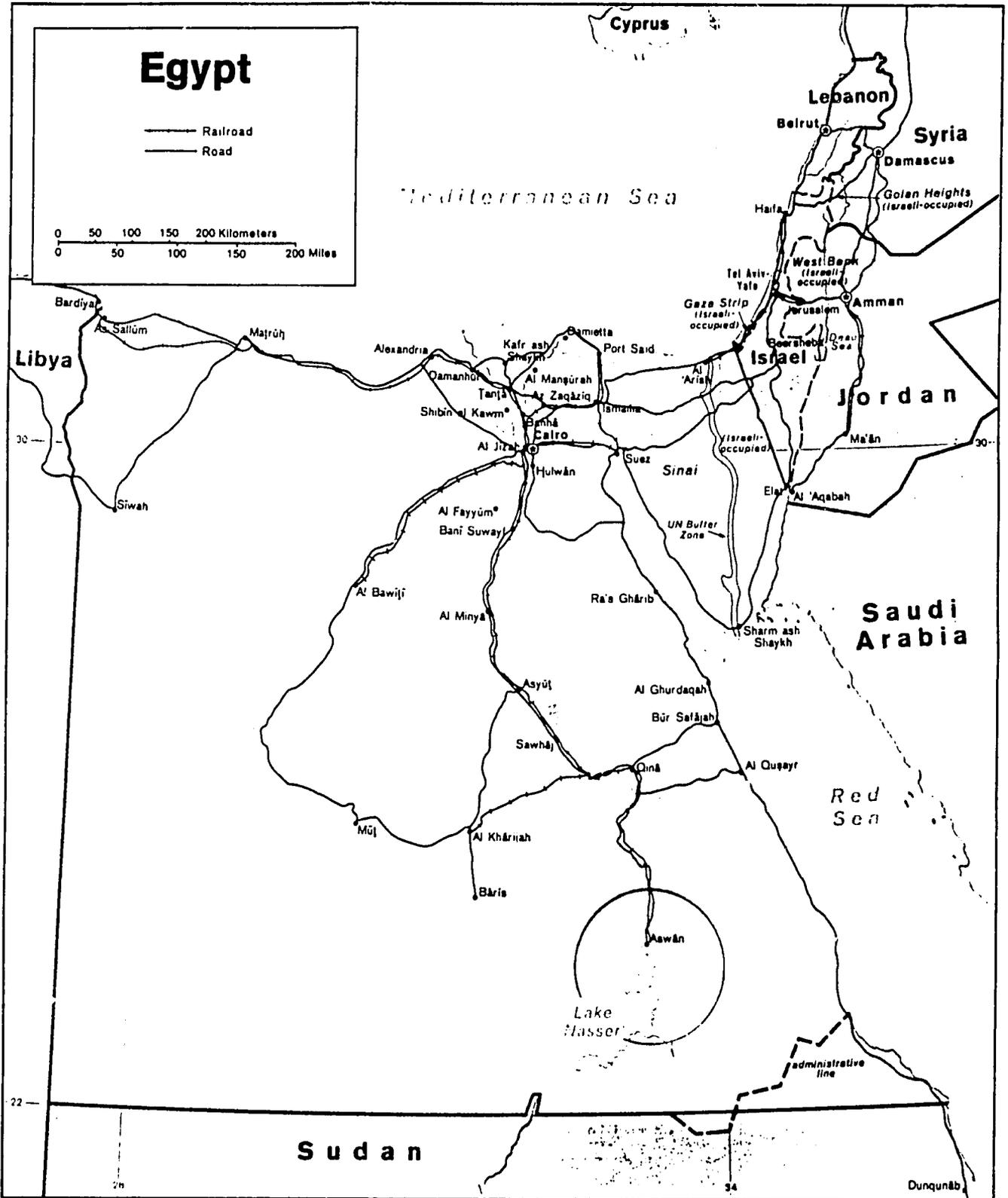
More serious than the lack of an evaluation, RIG/A/C views non-enforcement of the provisions of an international agreement, and especially covenants contained therein, to be inadvisable and injurious to the longer-term A.I.D.-GOE relationship. While we are not making a formal recommendation on this point, we strongly suggest that the Mission not include provisions in its agreements with the GOE that it does not intend to enforce or implement.

USAID/Egypt did not reply formally to the foregoing observations. However, Mission management has acknowledged our concerns and is placing increased emphasis on the fulfillment of host country contributions and of covenant provisions.

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Project No. 263-0160

EXHIBIT AND APPENDICES

EXHIBIT 1



11



UNITED STATES AGENCY for INTERNATIONAL DEVELOPMENT

CAIRO, EGYPT

FEB 5 1989

FEB 05 REC'D

M E M O R A N D U M

TO: Mr. Frederick A. Kalhammer, RIG/A/Cairo
FROM: Marshall D. Brown, DIR *sn*
SUBJECT: Audit of the Aswan High Dam Power Station Rehabilitation and Modernization, Project No. 263-0160

We have reviewed your draft memorandum audit report of the audit of USAID/Egypt's Aswan High Dam Power Station Rehabilitation and Modernization Project, Project 263-0160. Your audit identified a Project Covenant regarding financial reports which were not being submitted in a timely fashion.

Audit Recommendation No. 1:

We recommend that USAID/Egypt formally notify the Egyptian Electricity Authority that it is in arrears in its financial reporting to A.I.D. and obtain the required reports in a timely fashion.

USAID response:

On November 22, 1988, and January 9, 1989, we wrote to EEA and requested that they comply with the financial reporting covenant. (copies attached) Attached are EEA's reports on local currency expenditures and in-kind contributions to the project. The reports cover the period from Project inception through September 30, 1988 and December 31, 1988 respectively. In EEA's letter of transmittal for the report covering the quarter ending December 31, 1988, they confirm that future reports will be submitted on a quarterly basis throughout the remainder of the project.

Therefore, we believe that Recommendation No. 1 of your Audit Report should be closed.

8

OTHER PERTINENT MATTERS:

In the section of the subject Audit Report discussing "Other Pertinent Matters", you questioned USAID's approval of the \$40 million increase in project funding which appears to have contradicted the Mission's January 1987 Country Development Strategy Statement (CDSS).

During preparation of the CDSS in early 1987, USAID's energy sector strategy was one of the most important and most thoroughly discussed issues that arose. After the CDSS was approved, USAID continued its examination of the sector's policy and capital needs, through an electricity sector assessment completed in March 1987 and reviewed with the Acting Director in May 1987. Both of these assessments reaffirmed the stance that USAID has held ever since: that pricing reform is the most critical requirement to improve the efficiency of electricity use; and that new capital investments (new generation or generating plant rehabilitation) should not be approved without progress towards pricing reform.

While the CDSS was being drafted, USAID had already identified the need for additional repairs to the Aswan High Dam Rehabilitation/Modernization project, and this was factored into the discussions of our energy strategy. USAID did not view the \$40 million addition to the High Dam project as a new rehabilitation activity. In fact, the original Project Paper had anticipated that once the dam's generating units were disassembled to allow for runner replacement, other needed repairs might well be found. It would have been far easier and cheaper to make such repairs while the generating units were disassembled with the water passages drained than to wait and close the water passages and drain the units again later. Technically, it would have been illogical to fund only the repairs planned in the original Project Paper without dealing with the newly-discovered problems of insulation deterioration in the generators, defective instrumentation, obsolete relaying systems and leakage in the water control gates.

Despite the obvious logic of providing for these additional repairs, USAID did debate whether additional repairs should be approved without pricing reforms as is reflected in the documentation cited by RIG. In the end, in addition to the technical rationale described above the following factors led USAID to approve these repairs:

1. The proposed repairs added no new generating capacity to the grid but simply protected and extended the original U.S. investment.
2. There was no policy leverage to be gained by withholding the funds. In USAID's judgment, the threat of withholding the additional funding for the High Dam project provided no real incentive for price increases, because the amount was relatively small and the GOE could have found alternative sources of donor funding to substitute for USAID's. The World Bank was, at the time, offering much more substantial funding in the sector in return for significant price increases. Other donors, including the Soviets, were waiting in the wings. Since the Bank's and AID's promise of much higher levels of assistance did not sway the GOE to undertake price increases, the \$40 million amendment certainly could not have either.
3. There was a strong foreign policy and public relations rationale for approving the additional repairs. Since the Soviet Union had financed the original construction of the High Dam and its power plant and given the fact that the Soviet turbines cracked soon after the dam opened due to design errors, the US role in repairing this damage was of considerable foreign policy significance. Continuation of our support provided opportunity to reinforce this positive policy gain. Conversely had we refused to approve additional repairs we would have negated the policy gains already achieved while opening up the possibility for another donor - quite possibly the Soviets - to pick up where we left off.

4. Approval of the additional repairs did not appear to be sending the "wrong signal." Given that the amount proposed was relatively small in comparison to other proposed investments; was essentially a continuation of activity already underway and did not add any new capacity, we concluded that the additional funding would not weaken our or the Bank's negotiating position in the sector.

For these reasons, USAID approved the \$40 million High Dam amendment. It should be noted, however, that in deciding to go ahead, USAID wanted to be sure that the new financing would be limited to necessary repairs only. The Executive Committee directed the Project Committee to make the Project Paper Amendment "specific about precisely what repairs USAID will finance, to ensure that work stays within the scope originally intended by the project paper."

- Attachments:
1. Record of Local Currency Payments and Estimated In-Kind Contributions through September 30, 1988 and December 31, 1988
 2. Letters to EEA, dated 11/22/88 and 01/09/89

11-

APPENDIX 2

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