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AUDIT OF
INDUSTRIAL PRODUCTION: REFRACTORIES
USAID/EGYPT SUBPROJECT NO. 263-0101.04
Audit Report No. 6-263-87-3
November 24, 1986

UNITED STATES GOVERNMENT

memorandum

DATE: November 24, 1986

REPLY TO ATTN OF: Joseph R. Ferri, RIG/A/Cairo

SUBJECT: Industrial Production: Refractories
USAID/Egypt Subproject No. 263-0101.04

TO: Mr. Frank B. Kimball, Director USAID/Egypt

This report presents the results of audit of Industrial Production: Refractories, USAID/Egypt Subproject No. 263-0101.04. Despite being approved about eight years ago, the subproject is in the early stages of implementation. The audit showed there are potential implementation problems that require close monitoring by project officials and reporting to Mission management.

Please provide us within 30 days your written comments on actions planned or taken to implement the one recommendation in the report. We appreciate the cooperation and courtesy extended to our staff during the audit.

Background

The Refractories Subproject No. 263-0101.04 is to assist the Egyptian Company for Refractories in modernizing its Alexandria plant production lines to produce 95,000 metric tons of alumina refractories and monolithic refractory masses. The project agreement under which the Refractories Subproject is being carried out was signed in August 1978. The subproject completion date is May 31, 1988.

The subproject is financed through a grant of $13.93 million and a loan of $12.052 million; in addition to funding by the Government of Egypt equivalent to about $19.2 million. The total estimated project cost is about $45.2 million. As of June 30, 1986, total obligations were $25.98 million; total commitments $5.42 million; and expenditures $3.37 million.

The General Organization for Industrialization (GOFI) in the Ministry of Industry is the recipient of the grant and loan funds for the Government of Egypt. These funds were reloaned by GOFI to the Egyptian Company for Refractories.

OPTIONAL FORM NO. 10
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Audit Objectives And Scope

The Office of the Regional Inspector General for Audit/Cairo made a limited program results audit of the Industrial Production: Refractories, USAID/Egypt Subproject No. 263-0101.04. The audit objectives were to determine whether: (1) needed raw materials for plant production were in sufficient supply to achieve production goals; and (2) projected market demands for refractories were reasonable.

The audit was made at USAID/Egypt's Project Office, and the Government of Egypt (Egyptian Company for Refractories) offices. Visits were made to the raw material mines in Sinai and the project site in Alexandria. The audit work was done from May to August 1986, and was in accordance with generally accepted government auditing standards.

Results Of Audit

The audit showed that the needed raw materials were available in Egypt and that there would be a market for the anticipated production. In view of these results, and recognizing that the subproject was in an early stage of implementation, a detailed audit of the refractories subproject was considered unwarranted at this time.

The Egyptian Company for Refractories (ECR) is self-sufficient in satisfying the major part of production needs. It owns mines with ample reserves in Sinai and Aswan, and is exploring new areas on the Red Sea. In 1990, Egypt's total production should reach 310,000 metric tons. On the demand for refractories, market studies showed demand for Egypt in 1990 to be about 311,936 metric tons. Many new cement factories, like Suez and Quattamia for example, have started operating; the iron and steel complex in Helwan is expanding; and a new sponge-iron factory is expected to start operations in late 1986. Thus the demand for refractories in Egypt is growing at a very high rate.

As project implementation proceeds, however, USAID/Egypt will have to deal with the: (1) need for a secure source of power to operate the new plant; (2) possible inadequacy of local currency funding to carry out the Government of Egypt's financing obligations under the subproject; and (3) need for effective coordination in constructing the refractories plant and installing the machinery and equipment. Although the Project Officer was effectively monitoring the project, there was no formal monthly reporting to the responsible Mission management official. We therefore recommended that the Project Officer continue to closely monitor and formally report monthly on these matters to Mission management.

An Adequate Supply Of Electricity Is Needed - The design consultant estimated the new AID-financed plant would need 13 megawatts of power to operate. The Project Officer said a more recent estimate was that 8.5 megawatts was required. In any case, there are only 3 megawatts presently available from the Electricity Authorities of Alexandria. Ensuring there is a reliable source of power is a responsibility of the GOE implementing agency under the terms of the grant and loan agreements. The difference in needed megawatts is enormous, and it could be a problem for the city of Alexandria to make this power available to ECR because of competing demands in the area.

Recent correspondence, provided by the Project Officer, showed that the Alexandria Electricity Distribution Company suggested constructing a power transformer station at the ECR site. Construction was conditioned on ECR providing an area of not less than 3,000 square meters (50 x 60 meters), and paying for its share of construction expenses.

The proposed transformer station would have 66/11-kilovolt power and four circuit breakers of 3.5 megawatts each. ECR had no objection to the above suggestion, and expressed a willingness to have the needed area ready for the electric authorities. The correspondence provided no information concerning a time schedule for constructing this station. Time is an important factor since the AID-financed equipment will soon begin arriving, and installation and start-up is expected to be complete in about 18 months. The matter of coordination is discussed later under a separate heading.

USAID/Egypt and ECR officials assured us that the power supply will not be a problem; however, there is no written agreement between the parties concerning the power source. ECR officials said that, even in a worst case scenario, they can switch the power operating the old plant to the new plant. This is, of course, a possible solution, but it does not guarantee continuous uninterrupted operation of the new plant.

In order to secure a power supply, ECR and USAID/Egypt should reach a definitive agreement with the Electricity Authorities of Alexandria. USAID/Egypt project officials also should continue their monitoring to assure that the AID-financed plant will have an adequate power supply.

Local Currency Funding May Not Be Adequate - Local currency funding also is a potential problem. Project documents show that LE16 million (US$19.227 million at the old rate of LE.83) would be provided by the company to finance locally-procured plant construction materials. The GOE's 5-year-budget plan allocated only LE4.2 million for the first 5 years compared to the projected need of LE16 million, leaving ECR's budget short about LE11.8 million.

The ECR Chairman, commenting on this point, stated that all of the needed local currency will be available. He discounted the indicated shortage in the GOE budget by saying that this was not a problem because ECR had several other alternatives for financing, including obtaining loans from commercial banks.

ECR planned to import 30 percent (34,200 metric tons) of its raw material requirements. The current market price of the raw material is about U.S. $140 per metric ton; therefore, ECR would need as much as $4.8 million annually. This is an extra burden on ECR's budget that could impinge on its ability to obtain loans for local currency needs.

The Project Officer explained that making funds available for importing raw materials was not a major issue for two reasons: (a) ECR's annual revenues from the new plant were expected to be about $45-50 million, and management would give priority to setting aside $4.8 million for bauxite importation; and (b) the aluminum plant in Naga Hamadi (Upper Egypt) had enough bauxite (technical alumina) which could be made available for sale to ECR if needed.

Nevertheless, at this stage of project development there is no certainty that the local currency needs of the project will be met. USAID/Egypt should reach agreement with the Ministry of Industry and the ECR to specifically allocate funds for local currency needs and consider putting such funds in a separate account for the project.

Coordination of Machinery Purchases and Plant Construction Is Needed - There needs to be coordination between the construction contractors and the arrival of machinery and equipment so that, when the machinery and equipment arrives in Egypt, installation in the new plant can take place quickly. The prime contractor (to be selected) will be responsible for developing an implementation plan that integrates the arrival and installation of machinery and equipment.

Contracts totaling $16.6 million for the procurement of machinery and equipment were signed in June 1986 with four U.S. suppliers. The machinery and equipment contracted for was expected to begin arriving 32 weeks from June 1986, or in February 1987. As of October 31, 1986, however, the prime contractor who was to build the new plant had not been selected. This means that the prime contractor will be forced to work with a schedule for arrival of the equipment that may be difficult to effectively coordinate with the actual construction work.

USAID/Egypt and the ECR need to select the contractor for the construction work and have an integrated plan developed for arrival and installation of the machinery and equipment. Care should be taken to ensure that the machinery and equipment does not arrive in-country long before it can be installed.

Recommendation No. 1

We recommend that the Associate Director, Industry and Support Division, require the Project Officer to continue monitoring events closely, and to formally report to him at least monthly on progress being made to: (a) secure the necessary power supply; (b) provide the required amount of local currency financing; and (c) coordinate the procurement and installation of plant machinery and equipment.

Management Comments - USAID/Egypt concurred with the recommendation. The Mission said that the Project Officer is closely monitoring, and will continue to monitor, all aspects of project implementation, and will report monthly to the Associate Director. Each of the potential problem areas identified in the report were addressed in the Mission's comments and closure of the recommendation was requested. The complete text of USAID/Egypt's comments is included as Appendix 1.

Office Of Inspector General Comments - The establishment of a formal monthly reporting mechanism should strengthen the Mission's review process. Although the Mission's comments are responsive to the intent of our recommendation, we plan to review the monthly reports submitted before acting on the request to close.

UNITED STATES AGENCY for INTERNATIONAL DEVELOPMENT

CAIRO, EGYPT

November 20, 1986

MEMORANDUM

TO: Joseph Ferri, RIG/A/Cairo

FROM: William Miller, AD/FM

SUBJECT: Draft Audit Report
Industrial Production: Refractories
USAID/Egypt Subproject No. 263-0101.04

Attached is the project officer's response to recommendation no. 1 of subject report. Please close the recommendation.

UNITED STATES GOVERNMENT

memorandum

APPENDIX 1

DATE: October 30, 1986

REPLY TO ATTN OF: Eng. Amal Amin, IS/~~IR~~

SUBJECT: Draft Audit Report
Industrial Production: Refractories, USAID/Egypt Subproject No. 263-0101.04 Recommendation No. 1

TO: Thomas Johnstone, Audit Liaison, FM/FA

THRU: G. Reginald van Raalte, AD/IS

As recommended in subject report the project officer is in fact closely monitoring all aspects of project implementation. This close monitoring will continue over the next two years of planned implementation. The status of the three matters discussed in recommendation No. 1 is as follows:

a) Secure the necessary power supply

The 13 megawatt plant requirement was tentatively estimated by the design consultant (Kuljian) in the first stage of the design. After procuring the plant equipment the actual needs have now been estimated at (8.5) megawatts (Electrical Report dated Sep. 1986). Three megawatts have already been connected to the site in addition to the already existing three megawatts. For the remaining 5.5 megawatts the Alexandria Electric Authority is working closely with ECR to install a new transformer station. ECR has provided the land and the power station is to be completed by January 31, 1988.

b) Provide the required amount of local currency financing

The project has been approved in the five year plan 1982-1987. This project implementation in fact straddles two of the GOE's five year plans (1982-1987 and 1987-1992). The implementation schedule of the project is 1983-1988. In the first five year plan limited expenditures were made available because the project was only in the design phase and there was no immediate need for large local currency expenditures. Now that the project is progressing towards implementation, the financial manager of ECR has worked out his requirements for the new five year plan (1987-1992) to confirm the need for 25 million Egyptian pounds (expenditures) to be provided in 1987 and 1988. Local funds are now provided from the GOE in the form of loans from the National Investment Bank at an interest rate of 9.5%. If the local funds are not made available in due time ECR has confirmed that they can arrange commercial bank financing at 12-13%.

c) Coordinate the procurement and installation of plant machinery and equipment

This matter has been carefully considered by IS management and the project officer in the project's design phase. A prime US contractor to coordinate delivery, erection, construction works and commissioning of the plant was planned. However, given the fact that the prime US contract bidders quoted prices which cannot be justified when compared to local contractors' prices, ECR/plans with USAID concurrence to utilize local contractors to undertake erection and construction works. Kuljian/AP Green will perform overall construction management and provide plant performance guarantees.

Reporting:

The project officer has been meeting with her counterpart at least twice per week and is reporting developments as they occur. The project officer will continue monitoring actions at the site and will report to AD monthly.

In view of these actions, we request closure of recommendation no. 1 upon issuance of the audit report.

Editorial changes

Page 4 line 3.

Three Megawatts presently available. Request that this be changed to: Three Megawatts have been specifically connected to the plant for the erection purposes of the project. These three megawatts are in addition to the three Megawatts available in the old plant operation.

Clearance:

OD/IR : E. Baker

IR:AAmin:rh:10/29/86(6203I)

APPENDIX 2

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