

Regional Inspector General for Audit
Cairo, Egypt

6-263-95-010
August 13, 1995

Audit of Change Orders Under USAID/Egypt-Financed Construction Contracts

Report No. 6-263-95-010
August 13, 1995





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

CAIRO, EGYPT

August 13, 1995

MEMORANDUM FOR USAID/Egypt Director, John R. Westley

FROM :

RIG/A/Cairo, Lou Mundy

SUBJECT:

Audit of Change Orders Under USAID/Egypt-Financed Construction Contracts

This memorandum is our report on the subject audit. In preparing the final report, we considered your comments on the draft report and have included them in Appendix III. We concluded that, for the 20 change orders we reviewed, USAID/Egypt controlled change orders under construction contracts to provide reasonable assurance that they were necessary and reasonably priced. However, the Mission needed to resolve the questioned costs discussed in the report and take action to prevent payment of similar costs in the future. The report contains four recommendations for your action. Recommendations 1.1, 1.2, and 2 are closed upon issuance of this report. Recommendation 1.3 remains unresolved pending USAID/Egypt's determination of the amount of questioned costs to be recovered.

Please notify my office of the status of USAID/Egypt's efforts to implement recommendation 1.3 within 30 days. I appreciate the cooperation and assistance provided to the auditors on this assignment.

Background

USAID/Egypt finances many large construction contracts, primarily for water and wastewater, electric power, and telecommunication facilities. These contracts are awarded by Government of Egypt (GOE) contracting agencies but are financed by USAID/Egypt. After a construction contract is awarded, unforeseen conditions or other circumstances may make it advisable to require the contractor to perform additional work that was not specified in the original contract. Normally, this additional work and the related change in the contract price will be formalized through a change order.

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In accordance with the terms of each individual contract, change orders may be approved by the construction manager (an engineering firm hired to supervise the construction contractor) or by the GOE contracting agency and USAID/Egypt. Typically, the contracts we reviewed required the approval of the GOE contracting agency and USAID/Egypt for change orders exceeding \$100,000.

Our audit covered change orders issued on or before December 31, 1994 under construction contracts managed by USAID/Egypt's Development Resources Directorate. Based on information provided by the Directorate, we identified 304 change orders valued at \$144.6 million. This included 181 fixed price change orders valued at \$127.0 million, 97 cost reimbursement change orders valued at \$17.5 million, and 26 no cost change orders.

From this list, we randomly selected 20 change orders valued at \$23.5 million for detailed review. Based on the results of our review of this random sample, we decided to judgmentally select an additional 67 change orders valued at \$3.7 million to review certain narrowly defined cost issues (see Appendix I).

Audit Objective

The audit was performed to answer the following audit objective:

Did USAID/Egypt monitor change orders under construction contracts to provide reasonable assurance that the change orders were necessary and reasonably priced?

The scope and methodology of the audit is discussed in Appendix I.

Audit Findings

Our answer to the following audit objective is qualified to the extent of the effect, if any, of not having received written representations for the audit from USAID/Egypt officials directly responsible for the audited activities. Appendix I includes a discussion of this qualification.

Did USAID/Egypt monitor change orders under construction contracts to provide reasonable assurance that the change orders were necessary and reasonably priced?

For the cases we examined, USAID/Egypt monitored change orders under construction contracts to provide reasonable assurance that the change orders were necessary and reasonably priced.

We reviewed a random sample of 20 change orders to determine whether the change orders were necessary. After reviewing the change orders, comparing them to the original contracts and previous change orders, and, in four cases, physically observing the work that was performed, we concluded that all 20 change orders were necessary. That is, the rationale for the change orders was reasonable and the work provided for in the change orders did not duplicate work paid for under the original contracts or previous change orders.

We reviewed the same random sample of 20 change orders to determine whether they were reasonably priced. The results are summarized in the following table.

<i>Category</i>	<i>Number of Change Orders</i>	<i>Amount</i>
Price Reasonable	13	\$23,341,815
Price Unreasonable ¹	5	\$98,195
Could Not Determine	1	\$31,869
Not Applicable (No-Cost Change Order)	1	\$0
Total Reviewed	20	\$23,471,879

Although we concluded that five of the change orders were not reasonably priced, the dollar amounts were not significant relative to the total amount of the change orders reviewed. Therefore, for the cases we reviewed, we concluded that USAID/Egypt had provided reasonable assurance that the change orders were reasonably priced.

Based on the results of our review of the random sample, we decided to judgmentally select an additional 67 change orders valued at \$3.7 million to review certain narrowly defined cost issues (see Appendix I).

During the audit, we identified costs paid under change orders which were not supported, not in accordance with the terms of the underlying contract, or not reasonable. We also identified one contract which needed to be amended to comply with USAID policy. These problems are discussed in the following sections.

¹ If more than 5 percent of the price of a change order was unreasonable, we concluded that the price was unreasonable. The dollar amount we considered to be unreasonable includes \$48,832 of indirect costs which were billed on the basis of outdated rates, \$47,824 representing duplicate reimbursement of the same costs, \$1,440 in home office labor which we considered to be unnecessary, and \$99 in costs which were not related to the purpose of the change order.

Ineligible Costs Were Paid

Various provisions of USAID-financed contracts establish criteria for determining whether costs are eligible for payment. During our review of 87 change orders, we identified \$820,314 in costs which were not supported, not reasonable, or not eligible according to the contract provisions. We are classifying \$88,794 of this amount as questioned costs. The remainder, \$731,520, represents indirect costs which were paid on the basis of inappropriate rates (see detailed discussion below and in Appendix II). These costs were paid because the construction managers misinterpreted contract provisions or did not take effective action when they noticed unusual charges. In addition, USAID/Egypt did not obtain copies of most change orders and so was not in a position to identify these unusual charges itself. Finally, the Mission had not identified the need for financial audits of cost-reimbursement change orders.

Recommendation No. 1 We recommend that USAID/Egypt:

- 1.1 modify the current system for planning and performing financial audits to include construction contracts with cost-reimbursement change orders exceeding \$100,000 per contract,**
- 1.2 request a financial audit of the charge orders issued under the design/build contract for the Provincial Cities Development Project, and**
- 1.3 resolve questioned costs of \$88,794.**

USAID/Egypt-financed contracts contain various provisions which specify what costs are eligible for payment. Many of these provisions vary from contract to contract. However, the contracts we reviewed generally included a list of unit prices and estimated quantities and a provision which states that change orders will be valued, insofar as possible, using the rates and prices set out in the contract. Failing that, suitable rates and prices will be negotiated. Some contracts provide more specific criteria applicable to specific types of costs.

Based on our review of 87 change orders², we identified costs totaling \$820,314 which were not supported, not reasonable, or not in accordance with contract provisions. Most of this amount (\$731,520) represented indirect costs which were paid on the basis of inappropriate rates under a contract for the Provincial Cities Development Project. To determine appropriate rates based on the contractor's actual cost experience, USAID/Egypt needs to request a financial audit of the

² This included 20 change orders in our original random sample and 67 change orders which we selected specifically for the purpose of reviewing indirect cost charges, supplemental expense allowance charges, and a few other narrowly defined cost issues. We expanded our original sample size when we became aware of significant costs which did not appear to be in accordance with contract terms and knew it would only require a limited amount of time by audit staff to make the determination.

contractor's books and records kept in the United States. The remainder (\$88,794), which we are questioning, represents commodities manufactured outside the United States which were not eligible for USAID financing, duplicate charges for the same expenses, and reproduction costs which were priced unreasonably. We believe sufficient information is available for USAID/Egypt to resolve these questioned costs itself. Additional information is provided in Appendix II.

USAID/Egypt paid these costs for several reasons:

In some cases, officials working for construction managers misinterpreted contract provisions and approved payment of expenses which were clearly ineligible according to the terms of the contract. In other cases, the construction managers had questions about unusual items which were billed by contractors, and sometimes held discussions with the contractors about these items, but did not take effective action so that the items would be removed from the invoices or disallowed. Therefore, we concluded that it would be unwise to rely solely on the construction managers to ensure that change order costs were reasonable. The actions discussed below should provide additional assurance that costs are reasonable.

While USAID/Egypt had copies of the change orders it was required to approve (generally those exceeding \$100,000 in value), it did not normally have copies of change orders under \$100,000 in value that were approved by construction managers. While we are not making a formal recommendation, we discussed with USAID/Egypt officials the need to obtain copies of all change orders.

Although the Mission's policy was to identify cost-reimbursement contracts over \$100,000, so that financial audits could be requested, it had not identified cost-reimbursement change orders requiring audit. This was because the officials who maintained the Mission's inventory of contracts to be audited had no way to readily identify cost-reimbursement change orders financed under construction contracts. We identified six contracts with cost-reimbursement change orders totaling \$17.5 million requiring financial audits. USAID/Egypt has now included these change orders in its audit inventory and has taken action to identify similar change orders in the future.

To address the problems discussed above, USAID/Egypt has modified the current system to identify cost-reimbursement change orders performed under construction contracts so that financial audits can be planned and performed and has requested a financial audit of change orders issued under the design/build contract for the Provincial Cities Development Project. The Mission is in the process of resolving \$88,794 in questioned costs.

Cost-Plus-Percentage-of-Cost Pricing Was Not Appropriate

USAID policy applicable to host country contracts prohibits the use of cost-plus-percentage-of-cost pricing which permits the contractor's profit to increase as costs increase. Contrary to this policy, the design/build contract for the Provincial Cities Development Project used cost-plus-percentage-of-cost pricing for change orders. As a result, the contract created an inappropriate incentive for the contractor to maximize costs in order to maximize the profit it was entitled to receive. Use of this pricing method was due to error on the part of the Government of Egypt contracting agency and USAID/Egypt.

Recommendation No. 2 We recommend that USAID/Egypt bring the design/build contract for the Provincial Cities Development Project into compliance with USAID policy on cost-plus-percentage-of-cost pricing found in USAID Handbook 11, Chapter 2, Section 2.8.1.

USAID Handbook 11, Chapter 2, Section 2.8.1 states that "In no event will [USAID] finance a cost-plus-percentage-of-cost contract; i.e., a contract in which the profit or fee (however described) increases without limitation as the cost of the contract increases."

Contrary to this policy, the design/build contract for the Provincial Cities Project established an 8 percent profit rate for all change orders and set aside a provisional sum of \$4.6 million (later increased to \$5.1 million) to pay for these change orders. If actual costs are less than anticipated, the contractor's profit falls. If actual costs are more than anticipated, the contractor's profit increases (as long as funds are available). This creates an inappropriate incentive for the contractor to increase costs in order to increase its profit.

We were told that this prohibited pricing method was used because the Government of Egypt contracting agency objected to a fixed profit method. Several USAID/Egypt officials reviewed the contract before it was approved but did not note any inconsistency between the use of cost-plus-percentage-of-cost pricing and the Handbook 11 section cited above.

USAID/Egypt needed to bring the contract into compliance with USAID policy. The Mission subsequently notified the host country contracting agency and the construction manager that all future change orders under this contract must have a fixed fee.

Management Comments and Our Evaluation

USAID/Egypt agreed with the report recommendations and had implemented recommendations 1.1, 1.2, and 2. Therefore, these recommendations are closed. The Mission was in the process of implementing recommendation 1.3, but this recommendation remains unresolved pending the Mission's determination of the amount of questioned costs to be recovered.

SCOPE AND METHODOLOGY

Scope

We conducted our audit in accordance with generally accepted government auditing standards. These standards require auditors to obtain written representations from management when they deem them useful. The Office of Inspector General deems such representations necessary to support potentially positive findings. USAID/Egypt's Director provided us a management representation letter for the audit that contained essential assertions about the activities we audited. However, USAID/Egypt officials directly responsible for these activities did not provide written representations. Therefore, our answer to the audit objective is qualified to the extent of the effect, if any, of not having such assertions.

We performed the audit from January 1995 through May 1995. The audit covered change orders issued on or before December 31, 1994 under construction contracts managed by USAID/Egypt's Development Resources Directorate. Based on information provided by the Directorate, we identified 304 change orders valued at \$144.6 million. This included 181 fixed price change orders valued at \$127.0 million, 97 cost reimbursement change orders valued at \$17.5 million, and 26 no cost change orders.

From this list, we randomly selected 20 change orders valued at \$23.5 million for detailed review. Based on the results of our review of this random sample, we decided to judgmentally select an additional 67 change orders valued at \$3.7 million to review certain narrowly defined cost issues.

We limited our conclusions to the items actually tested. That is, we did not attempt to project the results of our tests to the universe of all change orders financed by USAID/Egypt.

We did not perform any specific audit tests to verify the list of change orders provided by the Development Resources Directorate because in our judgment any inaccuracies would not likely

affect the audit results. However, when information obtained during the audit indicated discrepancies in the list we obtained an explanation and made corrections to the list as appropriate.

The audit included an assessment of the internal controls related to the audit objective. We obtained an understanding of the relevant internal controls, determined whether they were placed in operation, and evaluated control risk.

Methodology

To answer the audit objective, we performed tests on the random sample of 20 change orders discussed in the scope section above. For these 20 change orders, we performed the following steps:

Reviewed the change orders and related correspondence to see if they were approved in accordance with contract requirements and USAID/Egypt Mission Order 5-4. We also reviewed USAID/Egypt's October 11, 1994 internal control assessment performed pursuant to the Federal Managers' Financial Integrity Act.

Compared the scope of work in each of the 20 change orders with the original contract and previous change orders to verify that the work was necessary and did not duplicate work already paid for.

Reviewed supporting documentation (e.g., contractor proposals and evaluations and independent estimates prepared by construction managers) to determine the rationale for the negotiated price of each change order. For change orders which authorized payment on a cost-reimbursement basis, we reviewed documentation (e.g., receipts and timecards) supporting the actual costs incurred. Based on this review, we determined whether the price of the change orders was reasonable. However, for one change order, the available documentation did not permit us to reach a conclusion concerning the reasonableness of the price.

For 4 of the 20 change orders, we visited completed construction work to verify that work paid for was actually completed.

In conducting these tests, we considered exceptions exceeding 5 percent of our sample, by dollar value, to represent significant non-compliance.

Since our review of the initial random sample of 20 change orders disclosed a substantial amount of unsupported and questioned costs, we expanded the audit to cover another 67 change orders to see whether the same types of problems affected other change orders with the same contractors

and construction managers. For these 67 change orders, we performed limited tests primarily to determine whether indirect costs and supplemental expense allowance charges were in accordance with the contract terms.

Discussion of Unsupported, Unreasonable, and Ineligible Costs

This appendix discusses the unsupported, unreasonable, and ineligible costs identified during the audit.

Provincial Cities Development Project (No. 263-0127/0161.03), Design/Build Contract

As background information, this contract included a \$6.9 million lump sum portion and a \$4.6 million cost-reimbursement portion (later increased to \$5.1 million). Work under the original contract statement of work was paid on a lump sum basis, while change orders were paid on a cost reimbursement basis. As of December 31, 1994, \$3.8 million had been paid to the contractor under 72 change orders.

Indirect Costs

Under 48 change orders, the contractor was reimbursed for indirect costs on the basis of rates that were out of date and no longer reflected the contractor's actual indirect costs. Also, it appeared that these rates included several categories of costs which were also billed as direct costs, resulting in possible duplicate reimbursement to the contractor for the same costs. The total amount of indirect costs paid under the change orders was \$677,333. Related profit at 8 percent totaled \$54,187.

The indirect cost rates paid to the contractor included 44.3 percent of direct labor costs for fringe benefits and 95.7 percent of direct labor costs for overhead, for a total of 140 percent. While the contract itself did not state what rates should be used, these were the same rates the contractor included in its proposal for the lump sum portion of the contract. These rates overstated the contractor's actual costs for several reasons:

The rates used to pay the contractor were based on cost data from the contractor's fiscal years ending in March 1990, 1991, and 1992. However, the work on the change orders was performed in the contractor's fiscal years ending March 1994 and 1995. In the interim, the contractor's indirect costs, expressed as a percentage of direct labor costs, fell steadily. For example, a pre-award survey which examined indirect costs for the fiscal years ending March 1991, 1992, and 1993 recommended indirect cost rates totaling 130.2 percent versus the rates totaling 140 percent that were paid under the change orders.

The rate calculation appeared to include costs which were also billed as direct costs under change orders, resulting in possible duplicate reimbursement to the contractor for the same costs. For example, according to the contractor, the indirect cost calculation

included salaries for accounting staff, computer staff, office staff, and reprographics (photocopying) staff. The direct labor charges under the change orders included many employees who appeared to be included in these categories.

The rate of 95.7 percent paid to the contractor for overhead was a home office rate. However, included in the direct labor base were several individuals who were assigned permanently in Egypt. According to the contractor's own practice, the overhead rate applied to these individuals should have been reduced to exclude costs such as rental of office space in the United States, depreciation, and utilities, which are associated with office occupancy in the United States. Excluding these costs would reduce the overhead rate from 95.7 percent to at least 82.4 percent.

Based on these considerations, USAID/Egypt needs to request a financial audit of the change orders issued under this contract. Once the financial audit is completed, the host country contracting agency will have to negotiate final indirect cost rates with the contractor.

Photocopying Charges

Under 54 different change orders, the contractor billed the cost of "reprographics" which mostly consisted of photocopies priced at \$0.10 each and collating at \$1.00 per set of copies. We believe that these prices are not reasonable because they exceeded commercially available photocopying prices by at least 50 percent. Also, under change order 65A, the contractor billed copies which were not related to the purpose of the change order. We are questioning all of the reprographics costs billed under change order 65A (\$99) plus 50 percent of the reprographics costs billed under the other change orders (\$6,573). The questioned amount also includes related profit at 8 percent (\$534).

Alexandria Wastewater Project (No. 263-0100), Contract 4/5

Allowance for Miscellaneous Expenses

Under change order 7, the contractor charged an 8.5 percent allowance intended to cover miscellaneous expenses such as transportation, equipment, hand tools, and materials and supplies that were not incorporated directly into the work. The contractor also charged these expenses as direct costs, resulting in duplicate reimbursement to the contractor for the same costs. The questioned amount includes the 8.5 percent allowance (\$41,586) and related overhead and profit (\$6,238).

Non-U.S. Origin Commodities

Under change orders 7 and 15, the contractor purchased a sandblasting machine, portable shelters, and light fixtures which were of non-U.S. origin, contrary to contract provisions which require commodities to be manufactured in the United States if the transaction exceeds \$5,000 in value. The questioned amount includes the cost of the sandblasting machine (\$5,152), the portable shelters (\$17,363), and the light fixtures (\$6,845), plus related overhead and profit (\$4,404).
