

SIGIR PA-05-020 MARCH 10, 2006

### **Special Inspector General for Iraq Reconstruction**

### **SIGIR PA-05-020**

March 10, 2006

#### Seif Sa'ad Police Station in Hilla, Iraq

#### **Synopsis**

**Introduction.** This report was previously provided on a limited distribution basis only in Iraq to representatives of the Gulf Region Division of the U.S. Army Corps of Engineers and the Project and Contracting Office. In accordance with the revised policy of the Office of the Special Inspector General for Iraq Reconstruction, all project assessment reports are being issued publicly.

This project assessment was initiated as part of our continuing assessments of selected sector reconstruction activities for Facilities and Transportation. The overall objectives were to determine whether selected sector reconstruction contractors were complying with the terms of their contracts or task orders and to evaluate the effectiveness of the monitoring and controls exercised by administrative quality assurance and contract officers. We conducted this project assessment in accordance with the Quality Standards for Inspections issued by the President's Council on Integrity and Efficiency. The assessment team included a professional engineer and an auditor.

**Project Assessment Objectives.** The objective of this project assessment was to provide real-time relief and reconstruction project information to interested parties in order to enable appropriate action, when warranted. Specifically, we determined whether:

- 1. Project results were consistent with original objectives:
- 2. Project components were adequately designed prior to construction or installation;
- 3. Construction or rehabilitation met the standards of the design;
- 4. The Contractor's Quality Control plan and the U.S. Government's Quality Assurance program were adequate; and
- 5. Project sustainability and operational effectiveness were addressed.

#### **Conclusions.** This assessment determined that:

- 1. The completed project was consistent with the original task order objectives. Specifically, the rehabilitation work, which included the renovation and construction of buildings and/or facilities and all associated equipment required for a functional police station, was completed. This occurred primarily because the U.S. Army Corps of Engineers project engineer and Quality Assurance Representative effectively managed the project.
- 2. This project consisted primarily of renovation work on an existing facility and the new construction of guard towers and a three-room building. The contract did not require submission and approval of design drawings for the new construction, but did include specifications for all work required. Although the contractor did not provide design drawings, this did not significantly influence the outcome of the project. Minimal design was required, which the U.S. Army Corps of Engineers

project manager and Quality Assurance Representative ultimately accomplished.

- 3. All work observed appeared to be consistent with the contract specifications, except for the installed roof system. The contract required a one-year warranty and the contractor agreed to repair the roof. The Seif Sa'ad Police Station renovation, upon completion of the roof repair, will result in an operational police station.
- 4. The Seif Sa'ad Police Station contract did not specify a requirement for a Contractor Quality Control plan, Contractor Quality Control daily reports, or a Contractor Quality Control deficiency-tracking log. The Quality Assurance program was adequate due to the Quality Assurance Representative being on-site during rehabilitation and reconstruction events, monitoring field activities, and completing daily Quality Assurance reports. In addition, the Quality Assurance Representative's reports were sufficiently complete and included project specific or detailed photographs that reinforced the narrative information provided in the reports.
- 5. The contract adequately addressed sustainability which resulted in an operational police station. The contract included the training of police station personnel to operate the generator along with operational and maintenance manuals for the generator. A review of the Seif Sa'ad Police Station showed that it was operating in accordance with the Scope of Work's specific objective for a functional police station.

#### **Recommendations and Management Comments.**

The leaking roof and insufficient mastic sealing between the roof tiles were the only exceptions noted during our site visit. The contract required "the Contractor to provide a one-year unlimited warranty for all workmanship and mechanical equipment provided in the renovation of said facility." Following our site visit, the U.S. Army Corps of Engineers Quality Assurance Representative contacted the contractor who agreed to fulfill his obligation under the warranty clause of the contract. Upon completion of the roof repair, the Seif Sa'ad Police Station renovation will result in an operational police station. This report does not contain any negative findings. Therefore, further management comments were not required.

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# Introduction

# **Objective of the Project Assessment**

The objective of this project assessment was to provide real-time relief and reconstruction project information to interested parties in order to enable appropriate action, when warranted. Specifically, we determined whether:

- 1. Project results are consistent with original objectives;
- 2. Project components were adequately designed prior to construction or installation;
- 3. Construction or rehabilitation met the standards of the design; and
- 4. The Contractor's Quality Control (CQC) plan and the U.S. Government's Quality Assurance (QA) program were adequate; and
- 5. Sustainability and operational effectiveness were addressed.

# **Pre-Site Assessment Background**

#### Contract, Task Order, and Costs

The Seif Sa'ad Police Station project was completed under Contract W917BK-05-C-0001, dated 12 January 2005, a firm-fixed contract, for \$123,000. Contract W917BK-05-C-0001 called for the renovation and construction of the existing Seif Sa'ad Police Station in Hilla<sup>1</sup>, Iraq. Gulf Regional Division – Southern District was to provide a Notice to Proceed to begin construction work.

There were two modifications to the initial contract:

- Modification # P0001 could not be located and the USACE Resident Engineer stated this was probably due to it being a duplicate of P0002.
- Modification # P0002, issued 1 July 2005, reflected a change in the Scope of Work (SOW) and increased funding by \$30,000. Contract W917BK-05-C-0001 was increased from \$123,000 to \$153,000.

#### **Project Objective**

The 11 December 2004, SOW stated the overall objective of this contract was to renovate and reconstruct the Seif Sa'ad Police Station. The specific objective for the Seif Sa'ad Police Station was to renovate or reconstruct existing buildings and/or facilities and all associated equipment required for a functional police station.

#### **Description of the Facility (preconstruction)**

The description of the facility (preconstruction) was based on information obtained from the contract and the USACE project file. The station included partial perimeter walls, gates, and a building with office space and holding cells. The Seif Sa'ad

<sup>&</sup>lt;sup>1</sup> Due to the various spellings for cities in Iraq, and in an effort to achieve standardization in SIGIR reports, Al Hillah, as noted in project documentation will henceforth be referred to as Hilla.

Police Station was located on the western edge of the city of Hilla, approximately 100 kilometers south of Baghdad, Iraq. The police station was structurally sound but in need of rehabilitation. The Seif Sa'ad Police Station was previously, and still is, an operating facility.

#### **Scope of Work of the Task Order**

Based on the initial SOW for the project, dated 11 December 2004, and Modification # P0002, dated 01 July 2005, the major tasks for the rehabilitation of the Seif Sa'ad Police Station were:

- Upgrade perimeter security
- Replace roofing material
- Upgrade electrical system and install lighting
- Supply and install 75 Kilo-Volt-Ampere (kVA) generator and fuel tank
- Construct new one-room and two-room buildings.

#### **Current Project Design and Specifications**

The contract SOW did not require project design submittals and approvals. Requirements for all construction and rehabilitation work included adherence to "International or Iraqi Code," as specified. Specific international or Iraqi codes were not identified in the contract. The contract did include general specifications for work to be completed under the contract.

#### **Reported Project Work Completed and Pending**

We determined the project's status prior to the site visit through discussions with the USACE Resident Engineer and Quality Assurance Representative (QAR), as well as a review of the contract. The Project and Contracting Office (PCO) database listed the overall project as 100% complete on 10 September 2005.

#### Project site work reported completed:

- Upgrade perimeter security
- Replace roofing material
- Upgrade electrical system and install lighting
- Supply and install 75 kVA generator and fuel tank
- Construct new three-room building (substitute for the one-room and two-room building)

#### Project site work reported underway:

• Project 100% complete

#### Project site work pending:

• Project 100% complete

#### Site Assessment

On 26 September 2005, we visited the Seif Sa'ad Police Station to perform an assessment. Since the project was considered complete, there was no project work ongoing at the time of the visit. The assessment covered work completed. During the site assessment, the Seif Sa'ad Police Station Chief of Police and his staff were on-site.

#### **Work Completed**

Significant areas of work completed included the upgrade of perimeter security, roof repair, electrical system upgrade, installation of a generator, and construction of two small buildings.

#### Upgrade perimeter security

The contract's bill of quantity required new construction, repair, and upgrade (height) of the perimeter wall, construction of two corner guard towers, supply and installation of 550 meters (m) of concertina barbed wire, installation of 20 square meters (m²) of paved parking area, and installation of 20 m² of sidewalks. During our site visit, we observed that the perimeter walls were in place and were painted and two corner guard towers were complete. Concertina barbed wire was located on top of all perimeter walls and on the police station's roof. The parking area was paved with asphalt and concrete and sidewalks were located around the police station and adjacent to the perimeter wall. The work accomplished appeared to be consistent with contract requirements.

Site Photo 1 shows the corner guard tower, perimeter wall, concertina barbed wire, sidewalks, and paved parking area. The second corner guard tower can be seen in Site Photo 2.



Site Photo 1. Guard Tower, Perimeter Wall with Concertina Wire on Top, Paved Parking Area, and Concrete Sidewalk



**Site Photo 2. Corner Guard Tower (located near Front Entrance)** 

### Replace roofing material

The contract's bill of quantity required the supply and installation of 20 m<sup>2</sup> of roof tile and mastic. The contract specified that the roof system was to consist of the following items being placed on the existing concrete roof: two layers of tar-coated felt, clean soft soil (0.07 m thick), clean soft sand (0.05 m thick), and new concrete

tiles with joints sealed with mastic. During the inspection of a renovated office, the Seif Sa'ad Police Station Chief of Police stated that water had been leaking from the ceiling into this room and an additional office. The walls of both offices had blistering and peeling paint. Inspection of the roof revealed that the roof mounted water tank was overflowing continuously causing water to flow onto the roof. The roof tiles and roof slope appeared to be correct; however, the space between the roof tiles was only partially filled with mastic. Site Photo 3 shows the damaged interior room wall and the tiled roof can be seen in Site Photo 4. Site Photo 5 shows the mastic seal between the roof's concrete tiles.



Site Photo 3. Damaged Interior Room Wall



Site Photo 4. Tiled Roof



Site Photo 5. Mastic Seal between Concrete Roofing Tiles

#### Upgrade electrical system and install lighting

The contract's required the supply and installation of 50 light switches, 30 ceiling fans, ten exterior corner lights, and a new circuit breaker panel. We inspected three rooms within the Seif Sa'ad Police Station that did have operational lighting and fans. No deficiencies were noted during the site visit.

We also observed an installed circuit breaker panel and exterior corner lights. Site Photo 6 shows the circuit breaker panel. The exterior lighting can be seen in Site Photo 7.



Site Photo 6. Circuit Breaker Panel



Site Photo 7. Exterior Mounted Lights on Police Station Walls

## Supply and install a 75 kVA generator and a fuel tank

Contract Modification # P0002 required the supply and installation of a 75 kVA generator and a fuel tank. We observed the generator and fuel tank behind the police station building. The generator factory nameplate lists the following information: company name - FG Wilson (Engineering) Ltd, Model - XP83E1, Serial Number -

FGWPEP03ED0A24324, Year of Manufacture - 2004, Rated Power - 82.5 kVA, Rated voltage - 400/230 Volt, Rated Frequency - 50 Hz, and Rated Current - 119 A. The fuel lines between the fuel tank and the generator appeared to be leaking. We observed that one side of the fuel tank was propped up to allow fuel flow when fuel levels were low. It appears police station personnel did this after the project was completed. This action changed the alignment of the fuel lines and was responsible for the fuel leak. Site Photo 8 shows the installed 82.5 kVA generator.



Site Photo 8. 82.5 kVA Generator

#### Construct new three-room building

Contract Modification #P0002 required the construction of a two-room 40 m<sup>2</sup> building for offices and sleeping rooms, and a one-room 20 m<sup>2</sup> building for the Chief of Police's office. These requirements were combined into a single three-room building. The contract did not specify design requirements for new construction. Design drawings were not prepared and, therefore, construction could not be verified against an approved drawing set. Our site visit did verify the completed construction of a three-room building. The building consisted of the following: stucco and painted exterior walls, doors, windows, electrical systems, and a flat roof. The exterior of the three-room building can be seen in Site Photo 9.



Site Photo 9. Exterior of the Three-Room Building

#### **Work in Progress**

There was no work in progress since the project is 100% complete...

#### **Work Pending**

During our site visit, the roof system appeared to be leaking. The contract included a one-year warranty for work completed. The USACE QAR subsequently contacted the contractor and requested he repair the roof. The USACE QAR advised that the contractor agreed to repair the roof and began work on 5 October 2005.

## **Project Quality Management**

Since the Seif Sa'ad Police Station contract did not specify a requirement for a Contractor Quality Control (CQC) plan, CQC daily reports, or a CQC deficiency-tracking log, the contractor completed none of these items.

USACE Engineering Regulation 1110-1-12 and PCO Standard Operating Procedure CN-100 specify requirements for a Government QA program. The USACE QA program was adequate. The USACE QARs were on site during rehabilitation and reconstruction events. USACE QARs monitored field activities and completed daily QA reports which he forwarded to the USACE Resident Engineer for review and verification of progress completed for payment approval. In addition, the QAR reports were sufficiently complete, accurate, and timely. Furthermore, the QAR reports included project specific or detailed photographs that reinforced the narrative information provided in reports. USACE QARs also maintained the QA deficiency logs. The procedures in place ensured

that potential construction deficiencies were detected, evaluated, and properly corrected, if necessary, in a timely manner.

### **Project Sustainability and Operational Effectiveness**

#### **Project Sustainability**

A review of the contract file, the site visit, and discussions with the USACE Resident Engineer and QAR disclosed that the Seif Sa'ad Police Station is an operating facility and that maintenance of the 82.5 kVA generator unit was the only significant sustainability issue at this site under this contract. Requirements for operation and maintenance manuals for the generator were included in the contract, as well as, training of on-site personnel. According to the USACE QAR, the contractor trained two-police station personnel with maintenance skills, and supplied the operation and maintenance manuals to the Seif Sa'ad Chief of Police.

#### **Operational Effectiveness**

A review of the Seif Sa'ad Police Station contract and work completed showed that the police station was operating in accordance with the SOW's specific objective for a functional police station.

#### Conclusions.

Based upon the results of our site visit, we reached the following conclusions for assessment objectives 1, 2, 3, 4, and 5. Appendix A provides details pertaining to Scope and Methodology.

1. Determine whether project results are consistent with original objectives.

The completed project was consistent with original task order objectives. Specifically, the rehabilitation work, which included the renovation and construction of buildings and/or facilities and all associated equipment required for a functional police station, was completed. This occurred primarily because the USACE project engineer and QAR effectively managed the project. Consequently, the Seif Sa'ad police station renovation resulted in an operational police station. Therefore, the original objective of the task order to renovate the Seif Sa'ad police station was met.

2. <u>Determine whether project components were adequately designed prior to</u> construction or installation.

This project was primarily renovation work of an existing facility and the new construction of guard towers and a three-room building. The contract did not require submission and approval of design drawings for the new construction, but did include specifications for all work required. Although the contractor did not provide design drawings, this did not substantially influence the outcome of the project. Based on the review of USACE on-site construction photos and QAR reports, it appears the contractor was experienced in constructing small facilities. Minimal

design was required which the USACE project manager and QAR ultimately accomplished. As a result, the Seif Sa'ad police station renovation resulted in a functional police station.

#### 3. Determined whether construction or rehabilitation met the standards of the design.

The contract did not require submission and approval of design drawings for the new construction, but did include specifications for all work required. All work observed appeared to be consistent with the contract specifications, except for the installed roof system. This occurred because the USACE Resident Engineer and USACE QAR effectively monitored and supervised the rehabilitation efforts of the contractor.

# 4. <u>Determine whether the Contractor's Quality Control plan and the Government Quality Assurance Program were adequate</u>.

The Seif Sa'ad Police Station contract did not specify a requirement for a CQC plan, CQC daily reports, or CQC deficiency tracking log, and none were completed. The USACE Engineering Regulation 1110-1-12 and PCO Standard Operating Procedure CN-100 do specify requirements for a Government Quality Assurance program. The QAR program was adequate due to the QARs being on-site during rehabilitation and reconstruction events, monitoring field activities, and completing daily QA reports. The procedures in place ensured that potential construction deficiencies were detected, evaluated, and properly corrected. In addition, the QARs reports were sufficiently complete, and included project specific or detailed photographs that reinforced the narrative information provided in the reports.

#### 5. Determine if project sustainability and operational effectiveness were addressed.

Sustainability was adequately addressed in the contract and resulted in an operational police station. The contract included the training of police station personnel to operate the generator and operational and maintenance manuals for the generator. A review of the Seif Sa'ad Police Station showed that it was operating in accordance with the Scope of Work's specific objective for a functional police station.

# **Management Comments.**

The leaking roof and insufficient mastic sealing between the roof tiles were the only exceptions noted during our site visit. The contract required "the Contractor to provide a one-year unlimited warranty for all workmanship and mechanical equipment provided in the renovation of said facility." The USACE QAR, following our site visit, contacted the contractor and he agreed to fulfill his obligation under the warranty clause of the contract. Upon completion of the roof repair, the Seif Sa'ad Police Station renovation will result in an operational police station. This report does not contain any negative findings. Therefore, management comments were not required.

# Appendix A. Scope and Methodology

We performed this project assessment from September through October 2005, in accordance with the Quality Standards for Inspections issued by the President's Council on Integrity and Efficiency. The assessment team included a professional engineer and an auditor.

In performing this Project Assessment we:

- Reviewed contract documentation to include the following: Contract, Contract Modifications, Scope of Work, and Independent Government Estimate for modification;
- Reviewed the design package (drawings and specifications), Quality Assurance Plan, Quality Control Plan, Contractor's daily Quality Control Reports, and Quality Assurance Reports;
- Interviewed the U.S. Army Corps of Engineers Area Engineer, Resident Engineer, Quality Assurance Representative, and the Seif Sa'ad Chief of Police; and
- Conducted an on-site assessment and documented results at Seif Sa'ad Police Station in Hilla, Iraq.

# Appendix B. Acronyms

CQC Contractor Quality Control

kVA Kilo-Volt Ampere

PCO Project and Contracting Office

QA Quality Assurance

QAR Quality Assurance Representative

SIGIR Special Inspector for Iraq Reconstruction

SOW Scope of Work

USACE United States Army Corps of Engineers

m Meter

# Appendix C. Project Assessment Team Members

The Office of the Assistant Inspector General for Inspections, Office of the Special Inspector General for Iraq Reconstruction, prepared this report. The principal staff members who contributed to the report were:

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