

AMMUNITION SUPPLY POINT
UMM QASR, IRAQ

SIGIR-PA-05-025
JANUARY 27, 2006

Report Documentation Page

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SPECIAL INSPECTOR GENERAL FOR IRAQ RECONSTRUCTION

January 27, 2006

MEMORANDUM FOR COMMANDER, GULF REGION DIVISION, U.S. ARMY
CORPS OF ENGINEERS AND DIRECTOR, PROJECT
AND CONTRACTING OFFICE
COMMANDER, JOINT CONTRACTING COMMAND-
IRAQ/AFGHANISTAN
DIRECTOR, IRAQ RECONSTRUCTION MANAGEMENT
OFFICE

SUBJECT: Report on Project Assessment of the Ammunition Supply Point, Umm Qasr,
Iraq (Report Number SIGIR-PA-05-025)

We are providing this project assessment report for your information and use. We assessed the in-process construction work being performed at the Ammunition Supply Point in Umm Qasr, Iraq to determine its status and whether intended objectives will be achieved. This assessment was made to provide you and other interested parties with real-time information on a relief and reconstruction project underway and in order to enable appropriate action to be taken if warranted. The assessment team included an engineer and an auditor.

We discussed the results of this project assessment with representatives of the Project and Contracting Office, Gulf region Division of the U.S. Army Corps of Engineers, and Joint Contracting Command-Iraq/Afghanistan who concurred with our conclusions. This report includes no recommendations that required management comments.

We appreciate the courtesies extended to our staff. This letter does not require a formal response. If you have any questions please contact Mr. Brian Flynn at (703) 343-9149 or brian.flynn@iraq.centcom.mil or Mr. Michael Stanka, P.E. at (703) 343-9149 or michael.stanka@iraq.centcom.mil.

Stuart W. Bowen, Jr.
Inspector General

Special Inspector General for Iraq Reconstruction

SIGIR-PA-05-025

January 27, 2006

Project Assessment of the Ammunition Supply Point Umm Qasr, Iraq

Synopsis

Introduction. This project assessment was initiated as part of our continuing assessments of selected sector reconstruction activities for electricity, oil, and public works and water. The overall objectives were to determine whether selected sector reconstruction contractors complied 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. This project assessment was conducted in accordance with the Quality Standards for Inspections issued by the President's Council on Integrity and Efficiency. The assessment team included an 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 will be 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. 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. The assessment determined that:

1. The completed project was consistent with the original contract objectives. Specifically, the design and construction of a combined armory/ammunition supply point was completed. This occurred primarily because the U.S. Army Corps of Engineers Resident Engineer and Quality Assurance Representative effectively managed the project.
2. The contract did not specify a design for the armory/ammunition supply point. The design was developed by the contractor and submitted in the form of design drawings and a list of materials that would be provided. The combination of the drawings and the materials list appeared adequate for this contractor to construct the project. Corrective action and management comments were not requested.
3. All work observed appeared to be consistent with the project designs and specifications submitted. The Armory/Ammunition Supply Point project resulted

in an operational facility for the Iraqi Navy to store weapons and ammunition. Corrective action and management comments pertaining to this non-finding were not required.

4. The Umm Qasr Armory/Ammunition Supply Point contract specified a requirement for a Contractor Quality Control plan; however, a Contractor Quality Control plan did not exist. The U.S. Corps of Engineers Quality Assurance program was adequate because the U.S. Corps of Engineers Local National Quality Assurance Representative was on-site during construction, monitored field activities, and completed daily Quality Assurance reports. In addition, the Local National Quality Assurance Representative's reports were sufficiently complete, and included project specific or detailed photographs that reinforced the narrative information provided in the reports. Corrective action and management comments pertaining to this non-finding were not required.
5. Sustainability and operational effectiveness were adequately addressed in this project. Specifically, the U.S. Government does not plan to maintain or operate the Armory/Ammunition Supply Point after completion; instead, it was turned over to the Iraqi Navy. As-built drawings and information on the operation and maintenance of the HVAC and fire alarm system was provided to the Iraqi Navy to enhance sustainability. In addition, the contract included warranties for all equipment for 12 months after the issuance of the Taking Over certificate. Further, the contract certified all operations for 12 months.

Operational effectiveness was addressed with proper planning and design, quality oversight, and quality construction.

Recommendations. No adverse conditions were noted during this assessment and as a result, this report does not contain recommendations. Therefore, written response to this report was not required.

Management Comments. Although not required, the Commander, Gulf Region Division responded concurring with the report without comment.

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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 will be 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. Contractor's quality control plan and the U.S. Government's quality assurance program were adequate; and
5. Sustainability and operational effectiveness were addressed.

Pre-Site Assessment Background

Contract, Task Order, and Costs

The Umm Qasr Ammunition Supply Point project was completed under Contract W27P4K-05-M-0021, dated 5 January 2005, a firm-fixed contract, for \$208,400. The contract was between the Multi National Security Transition Command – Iraq (MNSTC-I) Multi National Division (MND) Contracting Activity Southeast (SE) and Engineering Ishbiva, Basrah, Iraq. Contract W27P4K-05-M-0021 called for the design and construction of a combined armory/ammunition supply point (ASP) at the Umm Qasr Military Training Base in Umm Qasr, Iraq. The MNSTC-I Contracting Activity MND SE was to provide a Notice to Proceed to begin construction work.

There were two modifications to the initial contract:

- Modification # P0001, issued 24 January 2005, changed the location of the ASP from Grid: GR 836 241 to Grid: QU 8470 2422. No additional funding was added at that time.
- Modification # P0002, issued 29 April 2005, reflected work added to the contract and increased funding by \$44,250. Contract W27P4K-05-M-0021 was increased from \$208,400 to \$252,650.

Project Objective

The scope of work (SOW) describes that the objective of this project is for the design and construction of an ASP at Umm Qasr Naval Military Training Base (UQNMTB), Iraq. With the training that will be conducted at Umm Qasr, there is the possibility that there will be a large amount of ammunition and small arms stored and used on patrol ships.

Description of Facility (preconstruction)

The description of the facility (preconstruction) was based upon information obtained from the contract and the U.S. Army Corps of Engineers (USACE) project file. The Umm Qasr ASP facility was a new construction project at the port of Umm Qasr, Iraq, which is located approximately 350 miles southeast of Baghdad, Iraq, near the Kuwaiti border. The construction site is located at the southern section of the port of Umm Qasr at a point that was acceptable to the Iraqi Navy. The site is level and utilities such as water and electricity were available.

Scope of Work of the Task Order

The SOW submitted for the contract stated that this work was to provide materials and equipment to construct an ASP at the UQNMTB. The contract and the original SOW required substantial modifications to provide an ASP building that was acceptable to meet the intent of the project. The contractor proposed modifications were approved through a document submittal process and by on-site approval by the Quality Assurance Representative (QAR).

The SOW included the following major tasks:

- Construct ASP Building
- Install Security Fencing
- Install Security Lighting
- Install Lightning Arrestor

Current Project Design and Specifications

The contract's SOW included a requirement for the submittal and approval of all project designs and specifications. The SOW required submission of 35% and 100% conceptual designs, design and construction schedule, as-built drawings, and catalog cuts of major equipment items.

The contractor submitted conceptual and more detailed design drawings and a list of materials to the USACE. The assessment team reviewed the electronic copies of the design specifications and found the designs adequate for the construction and quality team to construct the facilities.

Reported Project Work Completed

We determined the project's status prior to the site visit through discussions with the USACE Resident Engineer and QAR, as well as a review of the contract. The Project and Contracting Office (PCO) database listed the overall project as 100% complete on 21 September 2005. The USACE Resident Engineer stated the ASP was turned over to the Iraqi Navy for its use in September 2005.

Project site work reported completed:

- Design and construct an ASP on the UQNMTB, Iraq.
- Design and construct a fence surrounding the ASP on the UQNMTB, Iraq.

- Provide pole-mounted lighting to illuminate the surrounding area. Connect the lighting to the local power supply.
- Design and construct the proper number of lightning arrestors to properly protect the ASP.

Project site work reported in progress:

- This ASP project is reported as completed; therefore, there is no work in progress reported.

Project site work pending:

- This ASP project is reported as completed; therefore, there is no work pending reported.

Site Assessment

The assessment team performed an on-site assessment of the ASP, located at the UQNMTB, Iraq, on 19 November 2005. Prior to the on-site assessment, the assessment team reviewed selected project documentation provided by the USACE. The assessment team discussed the project status and management processes with the USACE Area Engineer, Resident Engineer, and QAR. At the time of the assessment, the project was 100% complete and had been turned over to the Iraqi Navy which was currently using it for its intended purpose. Therefore, work completed was the focus of our assessment. The Iraqi Navy representative on-site during the assessment said (through an interpreter) that he was satisfied with the results of this project.

Work completed:

At the time of the site assessment all work had been completed and the ASP was turned over to the Iraqi Navy.

ASP Building

The SOW and plans submitted required that the ASP be constructed of masonry or brick. The assessment team verified that the ASP was constructed of brick and reinforced concrete with a visual inspection and after reviewing site construction photos provided by the Resident Engineer. The assessment team verified that the ASP was constructed as the drawings indicated.

Security Fencing

The SOW required security fencing around the ASP building. The fence was required to be chain link with a 2-inch diamond mesh. The top of the fence required general purpose tape obstacle barbed concertina wire or barbed wire outriggers. The assessment team observed the security fence (Site Photo 1) with barbed wire outriggers (Site Photo 2) which appeared to be consistent with design requirements. The fence and poles were anchored in the ground with concrete and appeared to be consistent with the design requirements (Site Photo 3). The chain link fence was 2-inch diamond mesh that appeared to be consistent with design requirements.



Site Photo 1. View of Security Fence around the ASP (Photograph Courtesy of USACE Resident Engineer)



Site Photo 2. Barbed Wire Outriggers on Security Fence



Site Photo 3. Security Fence Pole Anchored into Ground with Concrete

Lighting

The SOW required pole mounted outdoor security lighting connected to the local power supply. Site Photos 4, 5, and 6 show pole mounted and roof mounted lights which appeared to meet the requirements of the contract.



Site Photo 4. Three Pole Mounted Lights on Side of ASP



Site Photo 5. Three Roof Mounted Lights on the Rear of the ASP

Lightning Arrestor

The SOW required the design and construction of a lightning arrestor system. The assessment team observed that a lightning arrestor system was in place on top toward the back side of the ASP. The lightning arrestor system is displayed in Site Photo 6.



Site Photo 6. Lightning Arrestor and Roof Mounted Light

Work in progress:

This ASP project is complete and no work was in progress. At the time of the assessment, this facility was in use by the Iraqi Navy.

Work pending:

This ASP project is complete and no work was pending. At the time of the assessment, this facility was in use by the Iraqi Navy.

Project Quality Management

The Umm Qasr ASP contract specified a requirement for a Contractor Quality Control (CQC) plan; however, a CQC plan did not exist. In addition, the contractor did not produce daily Quality Control (QC) reports or maintain a QC deficiency log.

The USACE Engineering Regulation (ER) 1110-1-12 and the PCO Standard Operating Procedure (SOP) CN-100 specified requirements for a Government Quality Assurance (QA) program. The USACE QA program was adequate. The USACE Local National (LN) Quality Assurance Representative (QAR) was on-site during construction. The LN QAR monitored field activities and completed daily QA reports. The QA deficiency logs were maintained by the LN QAR. The LN QAR forwarded the QA reports to the USACE Resident Engineer for review and verification of progress completed for payment approval. The procedures in-place ensured that potential construction deficiencies were detected, evaluated, and properly corrected in a timely manner. Additionally, the LN QAR's reports were sufficiently complete, accurate, and timely. Furthermore, the QA reports included project specific or detailed photographs that reinforced the narrative information provided in the reports.

Project Sustainability and Operational Effectiveness

Project Sustainability

Review of the contract file and design drawings and discussions with the USACE Resident and Area Engineers disclosed that the U.S. Government does not plan to maintain or operate the facility after completion and there is no U.S. Government funding for operation or maintenance. The intent of this project was to provide this ASP building to the Iraqi Navy upon completion. On 19 September 2005, after construction was completed and the final inspection done, the ASP building was turned over to the Iraqi Navy. As built drawings and information on the operation and maintenance of the fire alarm system and the heating, ventilation, and air conditioning (HVAC) were provided to the Iraqi Navy to enhance sustainability.

The contract included warranties for all equipment for 12 months after the issuance of the Taking Over certificate. In addition, the contract certified all operations for 12 months.

During our site visit, a large crack in a stucco wall outside the ASP was identified (Site Photo 7). The USACE Resident Engineer noted that 6 and 12 month reviews of completed projects are done to identify any corrective actions required by the contractor. During the warranty period, the customer is required to provide a list of defects in workmanship and equipment to the USACE representative for resolution. The USACE Resident Engineer stated this crack will be noted and addressed during the 6 month review.



Site Photo 7. Crack in Stucco Wall Outside the ASP

Operational Effectiveness

Operational effectiveness of this project was addressed in the contractor proposed design, quality oversight, and quality construction. Safety issues for storing explosive materials were addressed by using reinforced concrete and double concrete walls with a buffer to reduce the likelihood of a sympathetic detonation should there be an explosion. A lightning arrestor system was constructed to reduce the probability of an electrical accident. The USACE LN QAR was on-site during construction and monitored field activities. This project was conceived in close coordination with the Iraqi Navy. We interviewed an Iraqi Navy representative who stated that he was satisfied with the results of the project. At the request of the Iraqi Navy, the contractor added, at no cost, several additional pieces of equipment to improve the operability of the facility. This facility was being used by the Iraqi Navy to store ammunition and weapons at the time of the assessment (Site Photos 8 and 9).



Site Photo 8. Iraqi Navy Weapons Stored within the ASP



Site Photo 9. Iraqi Navy Ammunition Stored within the ASP

Conclusions

Based on the fieldwork performed during this assessment, 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 will be consistent with original objectives.

The completed project was consistent with the original contract objectives. Specifically, the design and construction of a combined armory/ammunition supply point was completed. This occurred primarily because the USACE Resident Engineer and QAR effectively managed the project. The ASP has been turned over to the Iraqi Navy who is currently using the facility to store weapons and ammunition.

Corrective action and management comments were not requested.

2. Determine whether project components were adequately designed prior to construction or installation.

The contract did not specify a design for the ASP. The design was developed by the contractor and submitted in the form of design drawings and a list of materials that would be provided. The combination of the drawings and the materials list appears adequate for this contractor to construct the project.

Corrective action and management comments were not requested.

3. Determine whether construction or rehabilitation met the standards of the design.

The contract required the submittal and approval of project designs and specifications. The completed ASP appeared to meet the standards of the design and specifications. This occurred because the USACE Resident Engineer and USACE QAR effectively monitored and supervised the construction efforts of the contractor. The ASP project resulted in an operational facility to store weapons and ammunition. The ASP was turned over to the Iraqi Navy in September 2005.

Corrective action and management comments pertaining to this non-finding were not required.

4. Determine whether the Contractor's Quality Control plan and the Government quality assurance program were adequate.

The Umm Qasr ASP contract specified a requirement for a CQC plan; however, a CQC plan did not exist. The USACE ER 1110-1-12 and the PCO SOP CN-100 specified requirements for a Government QA program. The USACE QA program was adequate. The USACE LN QAR was on-site during construction. The LN QAR monitored field activities and completed daily QA reports. The QA deficiency logs were maintained by the LN QAR and forwarded to the USACE Resident Engineer for review and payment approval. The procedures in-place ensured that potential

construction deficiencies were detected, evaluated, and properly corrected in a timely manner. Additionally, the LN QAR's reports were sufficiently complete, accurate, and timely. Furthermore, QA reports included project specific or detailed photographs that reinforced the narrative information provided in the reports. Corrective action and management comments pertaining to this non-finding were not required.

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

Sustainability and operational effectiveness were adequately addressed in this project. Specifically, the U.S. Government does not plan to maintain or operate the ASP after completion; instead, the ASP was turned over to the Iraqi Navy. As-built drawings and information on the operation and maintenance of the HVAC and fire alarm system were provided to the Iraqi Navy to enhance sustainability. In addition, the contract included warranties for all equipment for 12 months after the issuance of the Taking Over certificate. Further, the contract certified all operations for 12 months.

Operational effectiveness was addressed with proper planning and design, quality oversight, and quality construction.

Recommendations.

No adverse conditions were noted during this assessment and as a result, this report does not contain recommendations. Therefore, written response to this report was not required.

Management Comments.

Although not required, the Commander, Gulf Region Division responded concurring with the report without comment.

Appendix A. Scope and Methodology

We performed this project assessment from November 2005 through January 2006, in accordance with the Quality Standards for Inspections issued by the President's Council on Integrity and Efficiency. The assessment team included an engineer and an auditor.

In performing this Project Assessment we:

- Reviewed contract documentation, including the Independent Government Estimate, Scope of Work, Contract, and contract modifications;
- Reviewed the design package (drawings and specifications) and Quality Assurance Representative reports;
- Interviewed the U.S. Army Corps of Engineers' Area Engineer, Project Engineer, and Quality Assurance Representative; and
- Conducted an on-site assessment of the Umm Qasr Ammunition Supply Point and documented results.

Appendix B. Acronyms

ASP	Armory/Ammunition Supply Point
CQC	Contractor Quality Control
ER	Engineering Regulation
LN	Local National
MNSTC-I	Multi National Security Transition Command - Iraq
PCO	Project and Contracting Office
QA	Quality Assurance
QAR	Quality Assurance Representative
QC	Quality Control
SE	Contracting Activity Southeast
SOP	Standard Operation Procedure
SOW	Scope of Work
UQNMTB	Umm Qasr Naval Military Training Base
USACE	U.S. Army Corps of Engineers

Appendix C. Report Distribution

Director, Project and Contracting Office
Commander, Joint Contracting Command – Iraq/Afghanistan
Commander, Gulf Region Division
Director, Iraq Reconstruction Management Office

Department of State

Secretary of State
Senior Advisor to the Secretary and Coordinator for Iraq
U.S. Ambassador to Iraq
Director, Iraq Reconstruction Management Office
Inspector General, Department of State

Department of Defense

Deputy Secretary of Defense
Director, Defense Reconstruction Support Office
Under Secretary of Defense (Comptroller)/Chief Financial Officer
Deputy Chief Financial Officer
Deputy Comptroller (Program/Budget)
Inspector General, Department of Defense

Department of the Army

Assistant Secretary of the Army for Acquisition, Logistics, and Technology
Principal Deputy to the Assistant Secretary of the Army for Acquisition,
Logistics, and Technology
Deputy Assistant Secretary of the Army (Policy and Procurement)
Director, Project and Contracting Office
Commanding General, Joint Contracting Command – Iraq/Afghanistan
Assistant Secretary of the Army for Financial Management and Comptroller
Auditor General of the Army

U.S. Central Command

Commanding General, Multi-National Force - Iraq
Commanding General, Multi-National Corps – Iraq
Commanding General, Multi-National Security Transition Command – Iraq
Commander, Joint Area Support Group – Central

Other Defense Organizations

Director, Defense Contract Audit Agency

Other Federal Government Organizations

Director, Office of Management and Budget
Comptroller General of the United States
Inspector General, Department of the Treasury
Inspector General, Department of Commerce
Inspector General, Health and Human Services
Inspector General, U.S. Agency for International Development

Congressional Committees and Subcommittees, Chairman and Ranking Minority Member

U.S. Senate

Senate Committee on Appropriations
 Subcommittee on Defense
 Subcommittee on Foreign Operations
Senate Committee on Armed Services
Senate Committee on Foreign Relations
 Subcommittee on Near Eastern and South Asian Affairs
 Subcommittee on International Operations and Terrorism
Senate Committee on Homeland Security and Governmental Affairs
 Subcommittee on Government Efficiency and Financial Management
 Subcommittee on Financial Management, the Budget, and International Security

U.S. House of Representatives

House Committee on Appropriations
 Subcommittee on Defense
 Subcommittee on Foreign Operations, Export Financing and Related Programs
House Committee on Armed Services
House Committee on International Relations
 Subcommittee on Middle East and Central Asia
House Committee on Government Reform
 Subcommittee on Government Efficiency and Financial Management
 Subcommittee on National Security, Emerging Threats and International Relations

Appendix D. 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:

Randall Nida

Kevin O'Connor