

The background of the page features a large, faint, circular seal. The seal contains an eagle with a shield on its chest, holding an olive branch and arrows. The text "SPECIAL INSPECTOR GENERAL" is written in English and Arabic around the top half of the seal, and "IRAQ RECONSTRUCTION" is written around the bottom half. In the center of the seal, over the eagle's chest, is the title of the report in bold, black, sans-serif capital letters.

**WAMAR INTERNATIONAL
SUCCESSFULLY COMPLETED
CONTRACTS, BUT UNANTICIPATED
PROBLEMS AFFECTED COSTS AND
SCHEDULES**

**SIGIR 10-007
JANUARY 28, 2010**

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SIGIR

Special Inspector General for IRAQ Reconstruction

Summary of Report: SIGIR 10-007

Why SIGIR Did this Study

The Special Inspector General for Iraq Reconstruction (SIGIR) has a legislative requirement to prepare a final forensic audit report on amounts made available for Iraq reconstruction. To fulfill this requirement, SIGIR has undertaken audits examining major Iraq reconstruction contracts. The objective of these audits is to review the key requirements and provisions of the contracts to determine contract costs, outcomes, and oversight, emphasizing issues related to vulnerabilities to fraud, waste, and abuse.

This audit focused on three contracts awarded to Wamar International, Inc. (Wamar); one indefinite-delivery/indefinite-quantity contract to purchase and deliver armored vehicles for U.S. and Iraqi forces, and two firm-fixed-price contracts to inspect and repair turbine generators at power plants near Baghdad. The contracts were funded mostly from the Iraq Relief and Reconstruction Fund, the Economic Support Fund (ESF), and the Iraq Security Forces Fund. According to SIGIR's October 30, 2008 Quarterly Report, Wamar was in the top 10 of contractors receiving ESF funds: the total funds obligated were about \$70 million. The Joint Contracting Command, Iraq/Afghanistan (JCC-I/A) administered the contracts, and the U.S. Army Corps of Engineers, Gulf Region Division (GRD), provided contract performance oversight.

What SIGIR Recommends

Previous SIGIR reports have included recommendations and/or lessons learned to address issues related to cost increases and schedule changes on Iraq reconstruction projects. The major issues identified in this report—changes in contract cost and schedules, and contract administration and project management—have been addressed. Accordingly, SIGIR includes no recommendations in this report.

Management Comments and Audit Response

SIGIR provided a draft of this report to responsible agencies for comment. Both the U.S. Army Corps of Engineers and JCC-I/A concurred with the report.

January 28, 2010

WAMAR INTERNATIONAL SUCCESSFULLY COMPLETED CONTRACTS, BUT UNANTICIPATED PROBLEMS AFFECTED COSTS AND SCHEDULES

What SIGIR Found

SIGIR found that Wamar successfully completed the three contracts and that JCC-I/A and GRD actively carried out their management and oversight responsibilities, though some management and contract problems affected costs and schedules.

The 2004 contract, competitively awarded to Wamar to purchase and deliver armored vehicles (W914NS-04-D-0121), was mostly successful although eight vehicles were stolen and other vehicles were delivered late. Wamar replaced the stolen vehicles at no cost to the government. At completion of the 2 ½-year contract in December 2006, Wamar had successfully delivered 245 armored vehicles to U.S. and Iraqi forces at a cost of \$32.96 million. The cost of some vehicles increased because of changes in U.S. government requirements, including adding special features to the basic vehicle. Further, after the theft of the vehicles, the U.S. government decided to fly the vehicles into Baghdad to prevent further thefts at a cost of about \$10,000 per vehicle. This added about \$2.0 million to total contract costs.

The two contracts awarded to Wamar to inspect and repair six turbine generators (W9GXY-06-C-0050 and W9GXY-07-0014) were generally successful even though the work cost more and took longer to complete than planned. Contract documents revealed that the two inspection contracts were competitively awarded and that Wamar's proposals represented the best overall value to the U.S. government and to the Iraq Ministry of Electricity (MoE). However, costs under the first contract, awarded in 2006, increased from \$24.01 million to \$34.82 million, and the performance period for the inspections was extended from fall 2006 to September 2008. Costs under the second contract, awarded in 2007, increased from \$14.92 million to \$25.42 million, and the performance period for the inspections was extended from fall 2007 to September 2008. Cost and schedule changes were due mainly to unanticipated repairs identified during the inspections and a fire at one of the generators. Additionally, the MoE delayed contractor access for some inspections which increased costs. These problems were out of the control of Wamar.

JCC-I/A and GRD actively and effectively carried out their management and oversight responsibilities on the inspection contracts, and resolved the few contract performance and personnel problems that occurred. SIGIR identified some administrative and management problems, including GRD-prepared independent government estimates which were overstated, and numerous JCC-I/A narrative and math errors on the first contract. At the time of this report, JCC-I/A had not financially closed out the contracts, nor had it located the contract files from which to conduct this closeout.



SPECIAL INSPECTOR GENERAL FOR IRAQ RECONSTRUCTION

January 28, 2010

MEMORANDUM FOR COMMANDING GENERAL, U.S. FORCES-IRAQ
COMMANDING GENERAL, U.S. ARMY CORPS OF ENGINEERS

SUBJECT: Wamar International Successfully Completed Contracts, but Unanticipated
Problems Affected Costs and Schedules (SIGIR 10-007)

We are providing this audit report for your information and use. The report discusses reconstruction work done under three contracts awarded to Wamar International, Inc.: one contract in 2004 to purchase and deliver armored vehicles to U.S. and Iraqi forces, and two contracts in 2006 and 2007 to inspect, test, refurbish, and repair turbine generators at the Qudas and Baghdad South power plants. We performed this audit in accordance with our statutory responsibilities contained in Public Law 108-106, as amended, which also incorporates the duties and responsibilities of inspectors general under the Inspector General Act of 1978. This law provides for independent and objective audits of programs and operations funded with amounts appropriated or otherwise made available for the reconstruction of Iraq and for recommendations on related policies designed to promote economy, efficiency, and effectiveness and to prevent and detect fraud, waste, and abuse. This audit was conducted as SIGIR project 9007.

The U.S. Army Corps of Engineers and the Joint Contracting Command provided technical comments on a draft of this report that we included as appropriate.

We appreciate the courtesies extended to the SIGIR staff. For additional information on the draft report, please contact David Warren, Assistant Inspector General for Audits, (703) 604-0982 / david.warren@sigir.mil or Glenn Furbish, Principal Deputy Assistant Inspector General for Audits, (703) 604-1388 / glenn.furbish@sigir.mil.

Stuart W. Bowen, Jr.
Inspector General

cc: U.S. Secretary of State
U.S. Ambassador to Iraq
U.S. Secretary of Defense
Commander, U.S. Central Command

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Wamar International Successfully Completed Contracts, but Unanticipated Problems Affected Costs and Schedules

SIGIR 10-007

January 28, 2010

Introduction

Public Law 108-106, as amended, requires that the Special Inspector General for Iraq Reconstruction (SIGIR) prepare a final forensic audit report on “all amounts appropriated or otherwise made available for the reconstruction of Iraq.” To help fulfill this requirement, SIGIR has undertaken a series of audits to examine major Iraq reconstruction contracts. The objective of these audits is to examine contract cost, outcome, and U.S. government oversight, emphasizing issues related to vulnerabilities to fraud, waste, and abuse.

Wamar International, Inc. (Wamar) was one of the top 10 contractors receiving Economic Support Funds (ESF). In total, it had ESF obligations of about \$70 million.¹ From all funding accounts combined, Wamar was awarded 29 contracts between 2004 and 2009 with obligations of \$150.17 million (see Appendix B). This report discusses the three largest completed contracts awarded to Wamar with obligations of \$93.20 million, including:

- One indefinite-delivery/indefinite-quantity contract (W914NS-04-D-0121) awarded in 2004, to purchase and deliver up to 250 armored vehicles to U.S. and Iraqi forces in Iraq, initially estimated to cost about \$30.90 million, and
- Two firm-fixed-price contracts, the first one awarded in 2006 (W91GXY-06-C-0050), and the second in 2007 (W91GXY-07-C-0014), to inspect, test, refurbish, and repair turbine generators at the Qudas and Baghdad South power plants, initially estimated to cost about \$38.93 million.

When contract W914NS-04-D-0121 for the delivery of armored vehicles was awarded in 2004, the Project and Contracting Office (PCO) provided contract and overall management for the project. With the issuance of Task Order 6 on this contract in April 2005, until the end of the contract, the Joint Contracting Command–Iraq/Afghanistan (JCC-I/A) replaced the PCO. At that time JCC-I/A assumed responsibility for contract management, including providing quality assurance. This contract was funded through the Iraq Security Forces Fund (ISFF), the Iraq Relief and Reconstruction Fund (IRRF) and the Development Fund for Iraq (DFI); when completed, 245 vehicles were purchased and delivered for \$32.96 million. The additional costs resulted from changing transporting methods, and modifications to the armoring design of the vehicles.

JCC-I/A was the contracting office for both turbine generator inspection and repair contracts. When the first contract was issued to Wamar in March 2006, the PCO was responsible for

¹ SIGIR’s October 30, 2008 Quarterly Report to the Congress.

program management, including defining the scope of work. In October 2006, the PCO was replaced by the U.S. Army Corps of Engineers, Gulf Region Division (GRD) which assumed responsibility for developing program requirements and providing technical expertise, technical/construction management, and quality assurance. The Iraq Ministry of Electricity (MoE), in addition to operating and maintaining the turbine generators, undertook site work at the units, including providing new water and fuel connections, major tank and piping refurbishments, and major electrical connections. The first inspection project (in 2006) was IRRF-funded while the second inspection project (in 2007) was ESF-funded. When completed, the total cost of these two inspection projects was just over \$60.24 million.

Background

Purchase and Delivery of Armored Vehicles for U.S. and Iraqi Forces: In early February 2004, U.S. forces decided that Iraqi personal security details did not have adequate armored vehicles that could operate safely in a variety of urban and remote off-road settings. As a result the Coalition Provisional Authority (CPA) decided that the Government of Iraq needed more than 100 such vehicles to transport Iraqi senior officials and that more were needed to support U.S. forces. To address these requirements, the CPA solicited proposals from U.S. companies for the immediate purchase and delivery of armored vehicles.

In April 2004, Wamar was awarded an indefinite delivery/indefinite quantity contract (W914NS-04-D-0121) to purchase and deliver a minimum of 8 and a maximum of 250 armored vehicles. The contract and subsequent task orders called for Wamar to deliver armored Toyota Land Cruisers and 4 Runners, Nissan Peace Keepers, Chevrolet Tahoes and Suburbans, or equivalent vehicles. These vehicles were to have an automatic transmission, a gas engine, 4-wheel drive, and sufficient factory-installed armor to provide protection against high-powered ammunition. Some vehicles included special features such as an upgraded suspension system, heat-treated hardened ballistic steel floors and roofs, heavy-duty steel wheels, gun ports, roof escape slides, run flat tires, fire suppression systems, and special seats.

Inspections of Turbine Generators at Qudas and Baghdad South Power Plants: At the beginning of the war, Iraq had approximately 29 power plants, all of which required regular inspection and overhaul to keep them running. The power plants at Qudas, including four General Electric (GE) Frame 9E turbine generator units, and at Baghdad South, including two similar GE units, have been the major providers of electricity for the area around Baghdad. According to GRD, the Qudas plant is a strategic site for which \$150 million of U.S. reconstruction funds had already been invested. Each of the GE turbine generators is capable of producing approximately 90 to 123 megawatts, depending on the type of fuel used to power the turbines. The turbine generators at each of the units require regular maintenance and overhaul at manufacturer-recommended intervals based on a number of factors, including the type of fuel used, the accumulated number of starts and shutdowns, and the number of operating hours. The optimum fuel to use in operating the turbine generators is natural gas, but the turbine generators can operate using crude oil. However, when turbine generators are run using crude oil, the times between required inspections decrease and maintenance requirements increase.

According to a senior Iraq Transition Assistance Office official, at the time of the inspections, the MoE maintained control of the power plants throughout Iraq, including the plants at Qudas

and Baghdad South. A U.S. Agency for International Development information bulletin noted that at that time many Iraqi power plants were in great disrepair and that Iraqi engineers had been pressured to keep the facilities running at any cost, often foregoing required maintenance and safety procedures. A GRD document also noted that “for many years, Iraqi power plants were run to failure without the required regular maintenance, and GRD cautioned that by not doing these inspections and overhauls, the risk of catastrophic failure increases and the only alternative may be to shut down the units.”

When JCC-I/A awarded the work for the first inspection, it noted that it lacked the basic technical information necessary to gauge the type and cost of the work that needed to be done at these power plants, though the agency recognized that even “minor inspections had not been regularly performed.” As such, JCC-I/A stated that the inspection and maintenance cost estimates for the contract were based on the limited information available, and that the true costs of the inspections and repairs could not be determined until the inspections were actually made. Further adding to the difficulty of estimating requirements and schedules, GRD noted that because of the pressure to keep the power plants running and to maintain electrical power to the city, the MoE would give GRD only one unit at a time to work on. Because the overhaul work had to coincide with lower power usage times in Iraq, the specific start times for the work could be determined only at the time the contract was awarded. Overall, the contract required the contractor to closely coordinate with the PCO and with the MoE.

In March 2006, after an open competition, Wamar was awarded a firm-fixed-price service contract (W91GXY-06-C-0050) to conduct either a hot gas path inspection or a combustion inspection on each of the turbine generators at the Qudas and Baghdad South power plants. (A general description of the work required on these types of inspections is included in Appendix C.) In March 2007, Wamar was awarded a second contract (W91GXY-07-C-0014) to continue the scheduled inspections for another cycle of inspections. Both contracts’ Statement of Work required Wamar to inspect and service all auxiliary systems and to procure and transport all parts. The contracts also included funding for mobilization and demobilization, life support, and security.

Objectives

SIGIR’s reporting objectives for the three contracts are to identify (1) project costs and outcomes and (2) contract and project management oversight and controls, emphasizing vulnerabilities to fraud, waste, and abuse. For a discussion of our audit scope and methodology and a summary of prior coverage, see Appendix A. For a summary of funds provided on Wamar’s contracts, see Appendix B. For a description of the types of turbine generator inspections, see Appendix C. For acronyms used, see Appendix D. For audit team members, see Appendix E. For Management Comments, see Appendix F. For the SIGIR Mission and Contact Information, see Appendix G.

Wamar's Purchase and Delivery of Armored Vehicles Was Mostly Successful, but Contract Management Information Was Incomplete

The contract awarded to Wamar (W914NS-04-D-0121) and subsequent task orders to purchase and deliver armored sports utility and other vehicles was successfully completed although eight vehicles were stolen and other vehicles were delivered late because of problems outside of Wamar's control. Wamar replaced the stolen vehicles at no cost to the U.S. government. During the 2 ½-year contract period, Wamar delivered the required 245 vehicles and was paid \$32.96 million. The cost of some vehicles increased because of changing U.S. government requirements, including the addition of special features to the basic vehicle, and a decision to fly, rather than ground transport, the vehicles into Baghdad following the theft of the eight vehicles. This decision added about \$10,000 to the cost of each vehicle, and about \$2.0 million to total contract costs. Although some of the vehicles Wamar delivered to their final destination—the Abu Ghayib warehouse—arrived late, Wamar officials said that all of the vehicles were delivered to Baghdad International Airport on time and that any onward delays, including those caused by customs problems, airport closures, and lack of personnel to inspect and accept the vehicles, were beyond its control.

SIGIR could not fully evaluate U.S. government management and oversight of this armored vehicle contract because information in the contract files regarding JCC-I/A oversight of the contract was incomplete. Moreover, SIGIR was unable to contact officers with detailed knowledge on the management of the 2004 contract. Thus, it was not possible to assess whether the problems with vehicle theft and delay could have been mitigated by improved contract oversight.

Armored Vehicle Purchase and Delivery – Cost and Outcome

The initial indefinite-delivery/indefinite-quantity contract for an immediate purchase of 8, and a maximum of 250 armored vehicles was solicited in February 2004 and competitively awarded to Wamar on April 27, 2004, for \$988,800. Under this 30-month contract, 16 separate task orders—one was canceled—were issued for Wamar to deliver armored vehicles.

At completion of the contract in December 2006, Wamar had successfully delivered 245 armored vehicles to U.S. and Iraqi forces at a cost of \$32.96 million. Most of the vehicles (198) were funded through ISFF and IRRF, but 47 were funded through DFI for use by the Government of Iraq. The average price of the vehicles was approximately \$134,000: individual vehicle costs ranged from \$123,600 to \$199,754; the final price depended on the special features added to the basic vehicle. Table 1 lists the 16 task orders and selected information associated with the task orders, including the number of vehicles to be delivered, the type of funds used, and the invoice amounts.

Table 1—Armored Vehicles Purchased Under Contract W914NS-04-D-0121

Task Order	Award Date	Vehicles Delivered	ISFF & IRRF Funds	DFI Funds	Invoice Amount^a
1	4/19/2004	8	-	\$ 988,800	\$ 988,800
2	5/20/2004	4	-	494,400	494,400
3	5/21/2004	5	\$ 618,000	-	618,000
4	5/19/2004	4	494,400	-	494,400
5	6/28/2004	35	-	4,326,000	4,326,000
6	4/24/2005	6	785,003	-	785,003
7	5/28/2005	8	1,044,000	-	1,044,000
8	6/10/2005	22	3,190,000	-	3,190,000
9	6/13/2005	7	952,000	-	952,000
10	6/19/2005	3	599,262	-	599,262
11	3/05/2006	8	1,164,800	-	1,164,800
12	5/04/2006	15	2,140,500	-	2,140,500
13	6/20/2006	93	12,424,800	-	12,424,800
14	7/22/2006	10	1,386,000	-	1,386,000
15	Cancelled	-	-	-	-
16	10/15/2006	17	2,356,200	-	2,356,200
Total		245	\$27,154,965	\$5,809,200	\$32,964,165

Note

^a Beginning with Task Order 6, delivery of the next 189 armored vehicles into Baghdad was changed from land to air, resulting in additional costs to the government of between \$10,000 and \$11,000 per vehicle, totaling about \$2 million.

Source: SIGIR developed information for this table based on copies of Task Orders and Wamar invoices.

Eight Armored Vehicles Stolen

In the early stages of the contract, eight armored vehicles in route to Baghdad were stolen along the Jordan-Iraq border, along with the trucks that were transporting them, and were never recovered. Figure 1 shows armored vehicles and delivery trucks in Baghdad similar to those that were stolen. The initial contract and subsequent task orders stated that the armored vehicles were to be delivered to the Abu Ghayib warehouse near Baghdad International Airport but did not specify how they were to be transported to the warehouse. Wamar officials told us they had decided to transport the vehicles via freighter from the United States to Jordan and then to have the vehicles transferred overland, alongside military-protected convoys traveling from Jordan to Baghdad. However, the convoys had no set schedules, no guarantee that they would operate, and no assurance that they could include the shipment of armored vehicles. As such, the vehicles and four delivery trucks were left in Jordan in an unsecured area waiting for a convoy escort when they were stolen. According to Wamar officials, because the PCO did not receive these vehicles as required, Wamar was not reimbursed for the nearly \$1 million it cost to replace the stolen

vehicles. Wamar later delivered replacement vehicles. As such, the theft of the vehicles did not result in additional costs to the government.

Figure 1—Armored Vehicles Being Delivered Overland in Iraq



Source: Wamar International

As a result of this theft, the Department of State Regional Security Office in Baghdad decided that all future vehicles would be delivered in the most secure manner possible. Beginning with Task Order 6, Wamar changed its method of transporting the final 189 vehicles from sea/ground to sea/air directly into Baghdad International Airport. Some of the vehicles were shipped to Dubai and then flown to Baghdad rather than through Jordan. According to Wamar officials, the additional cost to fly each vehicle was \$10,000 to \$11,000, for which Wamar was reimbursed by the U.S. government.

Armored Vehicles Not Always Received in a Timely Manner

Contract documents show that some of the armored vehicles were not received as timely as required, but information was insufficient to determine whether JCC-I/A or Wamar could have taken actions to expedite their delivery. The original announcement stated that the successful bidder was required to provide armored vehicles within 30 days after contract award. However, the solicitation and award document included nothing regarding delivery dates. Beginning in May 2005, Task Order 7 and all subsequent task orders included specific “No Later Than” dates for delivery of the armored vehicles. Our review of receiving documents for the vehicles at the Abu Ghayib warehouse showed that the vehicles were received an average of 26 days after the required date. In Task Order 10, three required armored vehicles were received 93 days late. The files, however, contain no information to indicate whether JCC-I/A or Wamar took action to speed up the vehicles’ delivery or whether the delays had any adverse impact on operations.

Wamar officials stated that they were never late in delivering the armored vehicles to Baghdad International Airport but that logistical and other factors beyond its control caused the delays from the airport to the warehouse. They also stated that after the vehicles arrived at the airport, they were transferred to Skylink, a U.S. government logistics contractor that was responsible for clearing the vehicles through customs; this process could take up to 20 days. Once through customs, Skylink would transfer the vehicles by ground transport to the Abu Ghayib warehouse. Once at Abu Ghayib, the vehicles might sit for several weeks before the Quality Assurance/Quality Control personnel would be available to inspect and receive the vehicles. Additionally, Wamar officials noted that ever-changing Iraqi customs regulations, closures at the airport due to security issues, and weather-related problems such as sandstorms also delayed final delivery to the airport. Therefore, they stated, it could take 40 or more days from the time the vehicles arrived at Baghdad International Airport until the receiving report was signed.

U.S. Government Data on Contract Management and Oversight Was Incomplete

Information in contract files regarding JCC-I/A's management and oversight of the armored vehicle contract was incomplete. The electronic contract files contained most invoices, receiving documents, and some correspondence regarding contract management. However, we found virtually no pre-award information, including contractor proposals and their evaluations, or decisions on the selection process. Moreover, information was limited regarding the extent and type of JCC-I/A oversight of vehicle deliveries. SIGIR was unable to locate officials with the historical knowledge of the contract that was executed between 2004 and 2006.

Wamar's Turbine Generator Inspections Were Generally Successful and Contract Oversight Was Extensive

The two contracts awarded to Wamar to inspect and repair turbine generators at the Qudas and Baghdad South power plants were generally successful even though the work cost more and took longer to complete than anticipated. Moreover, JCC-I/A and GRD exercised extensive oversight of Wamar's activities. Costs under the 2006 contract increased by \$10.8 million, and the performance period was extended by about two years. Similarly, costs under the 2007 contract increased by \$10.5 million, and the performance period was extended by almost one year. Cost and schedule changes were due mainly to unanticipated repair problems identified during the inspections and MoE delays in granting the contractor access to some of the power plants. The need for these repairs could not have been detected until the inspections were conducted. Another cost increase was caused by a fire at one inspection site that was caused by MoE activity. While some contract administrative issues arose (mainly on the first contract), overall JCC-I/A and GRD actively carried out their management and oversight responsibilities under these two contracts.

Contract documents revealed that the two turbine generator inspection contracts were competitively awarded and that Wamar's proposals represented the best overall value to the U.S. government and to the MoE. However, SIGIR identified some problems in the government's contract administration and project management, including overstated independent government estimates² and repeatedly incorrect requirements and costs on the first contract that resulted in numerous modifications to the contract. Moreover, although GRD determined in November 2007 that Wamar had successfully completed the 2006 inspections, and in September 2008 that the 2007 inspections had been completed, as of November 2009, JCC-I/A had not closed out either contract to ensure that all financial transactions were accurate and up-to-date, and JCC-I/A could not locate its contract files. Nevertheless, GRD oversight of the contractor was extensive throughout the two contracts' periods of performance, and the projects resulted in the required inspections and repairs of the turbine generators at the Qudas and Baghdad South power plants. When the inspections were completed, the turbine generators were operating as required.

2006 Turbine Generator Inspections - Cost and Outcome

The first contract (W91GXY-06-C-0050), estimated to cost \$24,010,000 and funded through IRRF, was solicited on January 5, 2006, and awarded on March 20, 2006. The contract called for Wamar to conduct hot gas path inspections and combustion inspections of the turbine generators and to service all auxiliary systems at the Qudas and Baghdad South power plants as

² An independent government estimate is the U.S. government's estimated cost/price of a proposed acquisition. Its purpose is to serve as a basis for reserving funds for the contract, comparing costs/prices offered by contractors, and determining the reasonableness of contractor proposals.

listed in the price schedule, which defined project requirements by Unit.³ This section of the contract called for the following inspections:⁴

- Combustion inspection on Qudas Unit 1 to begin in spring 2006
- Hot gas path inspection on Qudas Unit 3 to begin in spring 2006
- Hot gas path inspection on Qudas Units 2 and 4 to begin in fall 2006
- Combustion inspection on Baghdad South Units 1 and 2 to begin in fall 2006

The contract called for the inspection and start-up of the units to be completed within 50 days after Wamar received permission to start work, but no later than sometime in fall 2006; the performance period was to be staggered by unit and by the work to be done. The work was to include the servicing of all auxiliary systems and the procuring, refurbishing, and/or repairing and transporting of all parts as required under the contract. Figures 2 and 3 show turbine generators during repairs.

Figure 2—Turbine Generator Being Lifted during Repair



Source: Wamar International Files.

³ The “Units” listed in the contract refer to the power plant “islands,” including the individual turbine generators and their accessories and associated equipment.

⁴ The initial contract and early modifications incorrectly identified some of the Qudas Power Plant Units that were to receive a combustion inspection or a hot gas path inspection. Over the next several months, numerous modifications and administrative changes were made, and cost estimates changed to correctly identify inspection requirements. The inspections listed above were taken from Modification A00001 issued September 27, 2006.

Figure 3—Turbine Generator under Repair



Source: Wamar International Files.

Cost and Schedule Changes

Unanticipated repair work required to keep the units operational, including higher-than-expected parts replacement and refurbishment costs, resulted in increased inspection costs and schedule delays. These repairs were identified during Wamar's inspections and the need for these repairs could not have been identified in advance. By the time of the 11th and final contract modification in October 2008, project costs had increased by \$10,808,500 (45%), from \$24,010,000 to \$34,818,500, and the performance period had been extended from fall 2006 to September 30, 2008, about 2 years longer than planned. All funds appropriated for the contract have been disbursed.

According to GRD, Wamar was unable to refurbish or repair a large number of parts because of their advanced state of deterioration stemming from a lack of preventive maintenance and severe wear and tear. This unanticipated additional work at Qudas Units 1 and 4 accounted for most of the cost increases (see Table 2, which shows cost increases by unit). As one JCC-I/A official noted, the units were in worse condition than originally believed during the solicitation phase. During the inspections, Wamar inspectors determined, and JCC-I/A agreed, that the rotors in the turbine generators in Units 1 and 4 required complete refurbishing, repair, and testing. Moreover, due to a major shutdown and failure of the generator, Unit 4 required a major overhaul. In addition to the cost of additional repairs that were difficult to detect until the inspections were started, the delays caused by these unanticipated problems also resulted in increased security and life support costs.

Table 2—Planned and Final Costs for Contract W91GXY-06-C-0050

<u>Power Plant</u>	<u>Planned Cost</u>	<u>Final Cost</u>	<u>Cost Increase</u>
<u>Qudas</u>			
<u>Inspections Service, Parts and Repairs</u>			
Unit 1	\$ 3,022,000	\$ 5,848,000	\$ 2,826,000
Unit 2	3,022,000	3,485,000	463,000
Unit 3	4,642,000	4,642,000	-
Unit 4	4,642,000	7,112,000	2,470,000
Qudas - Inspections	\$ 15,328,000	\$ 21,087,000	\$ 5,759,000
<u>Other Costs</u>			
Mobilization/Demobilization	\$ 250,000	\$ 250,000	\$ -
Security	992,000	1,878,000	886,000
Life Support	390,000	585,000	195,000
Additional Repairs/Critical Maintenance	-	1,775,000	1,775,000
Equitable Adjustment	-	1,912,500	1,912,500
Qudas - Other Costs	\$ 1,632,000	\$ 6,400,500	\$ 4,768,500
Qudas Total	\$ 16,960,000	\$ 27,487,500	\$ 10,527,500
<u>Baghdad South</u>			
<u>Inspections Service</u>			
Unit 1	\$ 2,427,000	\$ 2,427,000	\$ -
Unit 2	2,427,000	2,708,000	281,000
Baghdad South - Inspections	\$ 4,854,000	\$ 5,135,000	\$ 281,000
<u>Other Costs</u>			
Mobilization/Demobilization	\$ 125,000	\$ 125,000	\$ -
New & Refurbished Parts / Units 1 & 2	1,380,000	1,380,000	-
Security	496,000	496,000	-
Life Support	195,000	195,000	-
Baghdad South - Other Costs	\$ 2,196,000	\$ 2,196,000	\$ -
Baghdad South Total	\$ 7,050,000	\$ 7,331,000	\$ 281,000
Contract Total	\$ 24,010,000	\$ 34,818,500	\$ 10,808,500

Source: GRD Contract Files.

Following are summaries of the costs and schedules for the individual inspections, including parts, security, life support and other costs at the four units at Qudas and the two units at Baghdad South under this contract.

Qudas – Unit 1: Wamar was to conduct a combustion inspection on this turbine generator in spring 2006 at an estimated cost of approximately \$3.02 million—\$811,000 to service the inspection and \$2.21 million for parts and other repair expenses (excluding mobilization, security, or life support). According to Wamar officials, Wamar began the inspection in May 2006 and completed the work in 10 days, and GRD determined in June 2006 that the required work on the turbine had been completed.⁵

At that time, however, JCC-I/A approved an additional \$133,000 for Wamar to inspect and repair couplings on the generator. According to Wamar documents, Wamar began this additional work in October 2006; in January 2007, GRD determined that the unit's generator rotor required complete refurbishing—including the rotor's repair, transport, installation, testing, and start-up. That winter, the contract was modified to cover additional costs incurred in refurbishing and overhauling the generator rotor, to include transporting the rotor to a refurbishing and high-speed balancing facility in the Netherlands. According to Wamar, because the rotor was extremely large, it required special handling, special equipment, and one-of-a-kind transport aircraft (see Figure 4). When all of the work was completed on the unit—including inspecting the unit and conducting the required rotor repairs—total costs had increased to \$5.85 million. GRD determined in November 2007 that the required rotor repairs were completed.

⁵ Dates on Wamar completion of inspections, and GRD physical completions and approvals, and closeouts were provided by Wamar.

Figure 4—Transport of Turbine Generator Rotor for Repair



Source: Wamar International Files.

Qudas – Unit 2: Wamar was required to do a hot gas path inspection on this turbine generator in fall 2006 at a cost of about \$3.02 million—\$811,000 for the inspection and \$2.21 million in parts. This requirement was modified to a combustion inspection. Even though Wamar officials had begun mobilizing to conduct the inspection in October 2006, the MoE did not release the unit as planned, causing Wamar to spend additional time on site. GRD recognized that the delay in conducting the inspection “increased the risk of component failure, and significantly reduced the reliability of the unit.” Wamar completed the inspection in late December 2006 at a cost of \$3.49 million. GRD determined in February 2007 that the required work on the unit had been completed.

Qudas – Unit 3: This turbine generator was scheduled for a hot gas path inspection in spring 2006 at an estimated cost of \$4.64 million—\$811,000 for the inspection plus an additional \$3.83 million in parts and other refurbishing expenses. Wamar began the inspection in April 2006 and completed the work in 1 month; the required work came in on budget. GRD determined in October 2006 that the required work had been completed.

Qudas – Unit 4: This turbine generator was scheduled for a hot gas path inspection in fall 2006 at an estimated cost of \$4.64 million—\$811,000 for the inspection plus an additional \$3.83 million in parts and other refurbishing expenses. Wamar mobilized to start the work in late December 2006. However, when the unit was ready for inspection, it failed. Wamar reported that the unit experienced unexpected high vibration and had to be shut down. As a result, GRD was forced to change the scope of work from a hot gas path inspection to a major overhaul.

However, by the time the work was completed in July 2007, total costs, including parts and other expenses, had increased by \$2.47 million to \$7.11 million. Wamar documents show that in November 2007 the required work on the unit had been completed.

Qudas - Parts, Security, Life Support, and Other Costs: In addition to the cost of the individual inspections and overhauls and the required rotor repairs at the Qudas plant, GRD budgeted \$1.63 million for mobilization and demobilization services, security, and life support costs. However, actual costs for these requirements increased to \$6.40 million. Life support costs increased from \$390,000 to \$585,000 and security costs almost doubled, from \$992,000 to approximately \$1.88 million. In addition, Wamar was awarded an equitable adjustment payment of \$1.91 million to cover other inspection costs, and another \$1.78 million was paid for “critical maintenance” necessary to complete the inspections.

Baghdad South – Unit 1: The planned combustion inspection on this turbine generator was estimated to cost \$2.43 million, including parts. The inspection was started in March 2007 and completed in a week for the estimated amount. GRD determined in July 2007 that the required work on the unit had been completed.

Baghdad South – Unit 2: The planned combustion inspection for this turbine generator was estimated to cost \$2.43 million. The inspection was started in January 2007 and completed in four weeks; costs increased by \$281,000 (from \$2.43 million to \$2.71 million) when the inspection was changed from a combustion inspection to a hot gas path inspection. GRD determined in July 2007 that the required work on the unit had been completed.

In addition to the inspections and required parts, the cost of refurbishing parts for both turbine generators was \$1.38 million, while the combined cost for security was \$496,000; both of these costs did not change during the contract period.

2007 Turbine Generator Inspections - Cost and Outcome

The second contract (W91GXY-07-C-0014) was solicited on January 2, 2007, and awarded on March 20, 2007, for \$14,916,000 in ESF funds. This contract required the following inspections in 2007:

- Combustion inspections on Qudas Units 1 and 4
- Hot gas path inspections on Qudas Units 2 and 3
- Hot gas path inspection on Baghdad South Unit 1
- Combustion inspection on Baghdad South Unit 2

The project required the successful inspection and start-up of all six units, including refurbishing and restoring all auxiliary systems and equipment to achieve fully operational systems. The performance period for this work—between March and November 2007—was to begin 10 days after contract award. Under this contract, JCC-I/A expected that each of the hot gas path inspections would take 45 days to complete and that each combustion inspection would take 20 days to complete. JCC-I/A noted that the actual timing for each unit would be “dependent upon the MoE’s release of the units.”

Cost and Schedule Changes

As with the 2006 contract, unanticipated repairs (including fire damage to one unit) increased the costs of the inspection projects. To compensate for the additional work, some inspection work that had originally been planned was eliminated. By the time of the eighth and final contract modification, contract costs had increased by \$10,505,000 (70%), from \$14,916,000 to \$25,421,000 (as shown in Table 3), and the performance period had been extended from November 2007 to September 2008. Cost increases were due almost entirely to repair fire damage to Qudas Unit 2, which eventually required a major overhaul. On the other hand, the planned combustion inspection at Qudas Unit 4 was not started after it was determined that the unit had too much damage for it to be repaired; funds scheduled for this work were used to complete repairs to Unit 2. At the completion of the contract, hot gas path inspections had been completed on three units, as required, and combustion inspections had been done on two others.

Table 3—Planned and Final Costs for Contract W91GXY-07-C-0014

<u>Power Plant</u>	<u>Planned Cost</u>	<u>Final Cost</u>	<u>Cost Increase</u>
<u>Qudas</u>			
<u>Inspections Service, Parts & Repairs</u>			
Unit 1	\$ 2,080,000	\$ 1,830,000	\$ (250,000)
Unit 2	2,550,000	13,518,460	10,968,460
Unit 3	2,550,000	2,550,000	-
Unit 4	1,900,000	-	(1,900,000)
Qudas -Inspections	\$ 9,080,000	\$ 17,898,460	\$ 8,818,460
<u>Other Costs</u>			
Security & Life Support	\$ 700,000	\$ 700,000	\$ -
Mobilization/Demobilization	100,000	100,000	-
Qudas - Other Costs	\$ 800,000	\$ 800,000	\$ -
Qudas Total	\$ 9,880,000	\$ 18,698,460	\$ 8,818,460
<u>Baghdad South</u>			
<u>Inspections Service, Parts, & Repairs</u>			
Unit 1	\$ 2,450,000	\$ 4,073,540	\$ 1,623,540
Unit 2	2,250,000	2,056,000	(194,000)
Baghdad South - Inspections	\$ 4,700,000	\$ 6,129,540	\$ 1,429,540
<u>Other Costs</u>			
Security & Life Support (Units 1 & 2)	\$ 250,000	\$ 507,000	\$ 257,000
Mobilization/Demobilization	86,000	86,000	-
Baghdad South - Other Costs	\$ 336,000	\$ 593,000	\$ 257,000
Baghdad South Total	\$ 5,036,000	\$ 6,722,540	\$ 1,686,540
Contract Total	\$14,916,000	\$25,421,000	\$10,505,000

Source: GRD Contract Files.

The following are summaries of costs and schedules for the inspections and other work done under this contract at the four units at Qudas and the two units at Baghdad South.

Qudas – Unit 1: According to the contract, Wamar was to conduct a combustion inspection on this turbine generator at an estimated cost of \$2.08 million—\$1.68 million to service the inspection plus an additional \$400,000 for parts and other repair expenses. The inspection was started in December 2007 and completed in one month for \$1.83 million after funding for the

required parts, valued at \$250,000, was cut. GRD determined in September 2008 that the required work on the unit had been completed.

Qudas – Unit 2: The original plan for Wamar to conduct a hot gas path inspection on this turbine generator at a cost of about \$2.55 million was changed significantly. Wamar started the inspection in October 2007, but in December 2007, the contract was modified and \$140,000 was added to pay for costs incurred by Wamar as a result of a fire to the unit. According to JCC-I/A documents, the fire was caused by “MoE actions.”

Over the next 4 months, the contract was modified three more times to make needed repairs caused by the fire. The modification in February 2008 added \$1.73 million. The March 2008 modification added \$6.24 million for fire-related work and subtracted \$550,000 budgeted for replacement parts. It also noted that additional funds were needed to cover Wamar’s increased operating expenses resulting from the MoE’s failure to release the unit for work in a timely manner. The May 2008 modification added \$2.12 million when it was determined that the unit required a major overhaul and \$1.33 million for an equitable adjustment payment to Wamar. When Wamar completed the work in August 2008, the cost to repair the unit totaled \$13.52 million, including \$3.73 million for the inspection, \$6.34 million to repair fire damages, \$2.12 million for the major overhaul, and an additional \$1.33 million for the equitable adjustment. GRD determined in September 2008 that the required work on the unit had been completed.

Qudas – Unit 3: This turbine generator was scheduled for a hot gas path inspection at an estimated cost of \$2.55 million—\$1.85 million for the inspection plus an additional \$700,000 for parts and other refurbishing expenses. Wamar began this inspection in October 2007 and completed it two months later and on budget. GRD determined in March 2008 that the required work on the unit had been completed.

Qudas – Unit 4: The \$1.90 million combustion inspection planned for this turbine generator was cancelled, and no work was done on the unit. Funds allocated for this inspection were used to settle Wamar’s “Request for Equitable Adjustment due to Government caused delays” and to pay for other parts and consumables and for other work required to repair the fire-related equipment on Unit 2.

Qudas – Mobilization, Security, and Life Support Costs Unchanged: The estimated \$700,000 for security and life support and the \$100,000 for mobilization/demobilization costs did not change during the contract’s performance period.

Baghdad South – Unit 1: In March 2008, Wamar began a hot gas path inspection of this turbine generator that was to cost \$2.45 million, including parts and other consumables. GRD determined that additional work was needed on the unit and, in May 2008, modified the contract, adding \$1.99 million to conduct an “extended” hot gas path inspection and \$257,000 for more security and life support. In October 2008 an additional \$182,000 was added to the contract to pay for shipping of required parts. However, the contract called for Wamar to repair, refurbish, and return to the site those parts that had been removed from the unit to be used as spares at a later date. In October 2008, this requirement was eliminated, and the \$550,000 originally planned to refurbish these parts was transferred to pay for some of the costs associated with the major generator overhaul at Qudas Unit 2. When completed, the cost of the work done on the

unit was \$4.07 million, \$1.62 million more than planned. Wamar completed the work in June 2008, and GRD determined in September 2008 that the required work on the unit had been completed.

Baghdad South – Unit 2: Wamar began a combustion inspection for this turbine generator in February 2008 at a cost of \$2.25 million. Wamar completed the inspection in 3 weeks, and all but \$194,000 that was planned for the refurbishing of parts was spent. These funds were used to pay for some of the costs associated with the major overhaul of Qudas Unit 2. GRD determined in June 2008 that the required work on the unit had been completed.

Contract Management and Oversight Was Sound, and Some Problems Were Resolved

The two contracts for the inspection and repair of the turbine generators at the Qudas and Baghdad South power plants were generally successful even though both cost more and took longer than planned, and some administrative problems hindered management of the contract. Both contracts were competitively awarded, and Wamar won both contracts on the basis of high technical ability, management approach, and low price. GRD's oversight of the projects was generally sound, and JCC-I/A effectively addressed some contractor performance issues. However, JCC-I/A experienced some administrative problems on the 2006 contract, including inaccurate statements of requirements and costs, and the agency has yet to financially close out the contracts or account for missing contract files.

Contracts Were Competitively Awarded and Wamar Proposals Received High Ratings

JCC-I/A awarded both the 2006 and the 2007 contracts to Wamar after open competitions and assessments that Wamar's proposals represented the best value for the U.S. government. On the 2005 contract (W91GXY-06-C-0050), JCC-I/A issued its request for proposals on January 5, 2006, and received proposals from six contractors. The Source Selection Evaluation Board evaluated the proposals using three factors: (1) technical ability to succeed, (2) management approach, and (3) price. Four of the six proposals were considered "nonresponsive" mainly because they were not completed correctly. Of the remaining two proposals, Wamar's received the highest overall rating of "High Confidence"⁶ for both its technical ability and management approach. In recommending Wamar, the Board noted that Wamar had completed five projects in Iraq and had a history of working with the PCO, the MoE, and the North Atlantic Treaty Organization. Wamar's use of local and bilingual Iraqi personnel was cited positively in the evaluation. The Board also reported that Wamar's financial statements and references were "impressive" and that the contractor's record of payment history was "impeccable."

In addition to its high ratings, Wamar's cost proposal was the lower of the two proposals considered; Wamar's price of \$24,010,000 also was less than one-third of GRD's independent government estimate of \$76,747,820. The Board's price evaluation team concluded that overall, Wamar had consistent and balanced pricing and that its proposal was competitively-priced. The Board noted that Wamar's costs were significantly lower than the government's estimate for purchasing and refurbishing parts and in providing security, life support, and mobilization,

⁶ High Confidence means that based on the contractor's capability, experience, and resources, the government has virtually no doubt that it can successfully perform the required work.

mainly because of its use and support of local labor. Overall, JCC-I/A made the best value source selection in accordance with the Federal Acquisition Regulation.

On the 2007 contract (W91GXY-07-C-0014), contract documents also demonstrate that JCC-I/A followed proper procedures in soliciting the contract, evaluating proposals, and making an award. According to the Source Selection Evaluation Board, the contract was subject to full and open competition and was publicized in accordance with Federal Acquisition Regulation requirements. According to GRD, the source selection evaluation criteria was supposed to emphasize the Iraqi First Initiative, which encouraged awarding contracts to local companies to promote socioeconomic development in the country. The government received six proposals of which four were eventually considered acceptable: including one from a U.S.-Iraqi Joint Venture company, one from an Iraqi-owned company, and one from Wamar, which included a workforce that was 96% Iraqi. The Board's evaluation of each proposal focused on technical, socioeconomic, past performance, and price merits. Even though the Joint Venture company was considered more technically capable, Wamar's proposed price was significantly lower, and its proposal was considered to be the best overall value to the government when price and other factors were considered.

GRD Had Problems Developing Its Independent Government Estimates

An independent government estimate—the U.S. government's estimated cost/price of a proposed acquisition—is to be completed prior to soliciting bids on a contract. These estimates are used by U.S. government agencies to gauge the merits of contractor proposals it receives. GRD conducted the initial cost estimates of the work to be done under both inspection contracts. GRD's estimates were much higher than the final costs and appear to SIGIR to have been of little value in evaluating contractor proposals.

GRD estimated the required work under the 2006 contract would cost approximately \$74 million.⁷ This estimate was about three times greater than the prices quoted by each of the two final contractors and two times greater than the final cost of the inspections, including all the cost increases for additional repairs. The Source Selection Evaluation Board realized that this estimate was significantly “disproportionate” in pricing compared to prevailing competitive pricing. Virtually all of the components of the estimate were greatly overstated. For example, GRD estimated the cost of conducting a hot gas path inspection and a combustion inspection at \$3.10 million, while Wamar's proposals were \$811,000 and \$720,000, respectively. GRD also estimated the six-month cost of security at \$2.24 million, while Wamar's proposal was for \$496,000; moreover, GRD's estimates for life support and mobilization were five times greater than the price offered by Wamar.

On the 2007 contract, the independent government estimate was again “disproportionate” even though GRD had just completed the same work on the 2006 contract. For example, GRD's estimate for the entire contract was \$48.93 million, more than three times Wamar's proposed cost of \$14.92 million. GRD estimated the total cost of providing, refurbishing, or replacing

⁷ GRD recognized that estimating costs would be difficult because of the unknown damages to the gas turbines due to lack of required maintenance by the MOE and because GRD's firm-fixed-price estimates had to include additional funds for any unanticipated costs discovered during the teardown and inspection phases.

parts at \$16.75 million, while Wamar's proposal was \$2.40 million. Similarly, GRD's estimate for security was \$5.30 million compared with Wamar's proposal of less than \$1.0 million.

JCC-I/A Management of 2006 Contract Experienced Administrative Problems

Our review of contract files shows that contract administrative problems—such as inaccurate identification of requirements, price estimates and performance periods, and math errors—hindered management of the 2006 contract throughout the first year. Almost all of the problems were associated with the planned work at the Qudas Power Plant. According to JCC-I/A and Wamar officials, many of these problems may have resulted from constant turnover of contracting officers on the project. Contract management improved throughout 2007 and 2008, and from April 2007 until the work was completed in February 2008, JCC-I/A made only minor changes to the contract.

Contract documents show that JCC-I/A officials were well aware of its problems in administering the 2006 contract. Over the first ten months, four contract modifications were issued, mostly to correct government narrative or math errors. According to contract files, some line items were incorrectly priced and some invoices and receiving documents were improperly completed. The original contract section that outlined the price schedule and identified the types of inspections to be done, their price, and schedule and performance periods had to be completely modified within two days after it was issued because it was filled with math errors and required other corrections. This modification, however, also contained inaccurate information, and, in September 2006, JCC-I/A again modified the contract to cancel the price schedule section in its entirety and to add \$3.62 million to the contract to pay for additional work. In total, four modifications were issued specifically to correct math and narrative errors in the contract. In addition, because of the changing work requirements, the contract performance period had to be extended four times during the second year.

JCC-I/A Addresses Contractor Performance Issues

Overall, JCC-I/A exercised good oversight of Wamar contract activities, and Wamar positively addressed the few problems that arose. Nevertheless, some issues and concerns were raised during the inspections, including concerns about the contractor's parts management. In a May 31, 2007 letter to Wamar, JCC-I/A questioned the state of Wamar's control system on Units 1 and 4, noting that on Unit 4, a number of items were "bypassed, forced, or not working." Wamar officials responded that they were making the required improvements in the areas of control systems, housekeeping, fuel leaks, equipment inspections, and calibration records. According to JCC-I/A officials, because no additional letters were in the files on this issue, they could only presume that Wamar's response satisfied the assigned contracting officer. In a response to SIGIR questions about Wamar's overall performance on the contracts, JCC-I/A officials responded that in the absence of further letters of concern or other correspondence in the files regarding performance, cost/price, reliability, and compliance with the contracts' statements of work, they believed that Wamar's performance was positive. In a memo for the record during the 2006 inspection, JCC-I/A noted that Wamar had several other contracts with the government, including "a strong past performance history." A senior Iraq Transition Assistance Office official involved with the turbine generator inspections stated that Wamar "had the best record" of the companies performing these types of inspections.

Wamar also complied with a JCC-I/A request to resolve a serious staffing problem. In September 2006, the contracting officer informed Wamar in a letter that one of Wamar's senior officials had been a member on the Source Selection Team that made the recommendation to award the 2006 contract to Wamar. This conflict of interest problem could have affected the contractual relationship between the government and the contractor. JCC-I/A notified Wamar that this employee was in violation of the Nondisclosure Agreement and Conflict of Interest Certification and that, as such, his employment with Wamar raised serious questions regarding the validity and impartiality of the overall contract award. In the letter, the contracting officer indicated that JCC-I/A would "continue to investigate this matter" and requested that Wamar remove the employee from any future involvement in matters associated with the contract. According to Wamar officials, after receipt of the letter, the company terminated the employee's contract. As a result of Wamar's response, JCC-I/A conducted no further investigations and took no further actions against the contractor or the employee.

GRD Oversight Generally Sound, but JCC-I/A Has Not Closed Out Contracts, and Contract Files Are Missing

Our review of contract documents showed that GRD provided constant and detailed reviews and oversight of Wamar inspection and repair activities throughout the performance periods of both contracts. SIGIR reviewed copies of Wamar's required Accident Prevention and Safety Plans, Quality Assurance and Quality Control Plans, and warranty documents and reports along with the MoE's Environmental Plans. SIGIR also reviewed records of GRD daily, weekly, and monthly meetings in addition to numerous e-mails, letters, and other correspondence between the U.S. government and Wamar officials regarding the inspections. SIGIR found that GRD files included a detailed record of the status of inspections, including electrical checks and tests, ultrasonic inspections of the turbines, independent international certificates of conformity and quality, and established procedures for storing and handling parts, materials, and equipment required during the inspections. Our review of the documents also showed that GRD had consistently reviewed Wamar's cost proposals and schedule changes and monitored ongoing inspection problems.

However, JCC-I/A has not taken timely action to financially close out the two contracts and could not locate the official files from which to complete these closeout procedures. The Federal Acquisition Regulation states that firm-fixed-price contracts should be closed out within six months of evidence of completion. Once a contractor has physically completed a contract, contracting officers are to begin the administrative and financial components of closeout. JCC-I/A's Contract Closeout Task Force Office, located in San Antonio, Texas, is responsible for the financial closeout and storage of all firm-fixed-price contracts such as those awarded to Wamar. While no major issues appear to be outstanding with the Wamar contracts, as of December 2009, the contracts had not been closed out, and the location of the official contract files from which to conduct the final financial closeouts was unknown. Neither JCC-I/A nor its Contract Closeout Task Force Office could tell us the status or location of the files.

On the 2006 contract, Wamar had completed all of the inspections by July 2007, and GRD determined by August 2007 that the inspections had been physically completed as specified. On the 2007 contract, by August 2008, GRD had determined that Wamar had completed the inspections as specified. Financial closeout—determining whether a contract audit has been

completed, a final contractor's invoice has been submitted, and excess funds have been deobligated—is considered to be the most critical phase of the closeout process. However, according to Wamar and JCC-I/A officials, as of December 2009, neither contract had been financially closed out. While financial closeout procedures were not done, it appears that no major financial issues are outstanding with either contract. According to Wamar documents, the inspections were completed, all invoices were submitted and paid, and virtually no funds remain to be deobligated.

Conclusions

The three Wamar contracts were generally successful and JCC-I/A and GRD exercised sound management and oversight over the work. Wamar, JCC-I/A, and GRD faced multiple challenges on all three contracts but took prudent measures to control costs and complete the required work.

Wamar's armored vehicle contract, though not free of problems, was mostly successful. The most significant problem, the theft of eight vehicles that were in route to Baghdad, eventually resulted in a U.S. government decision to change the way Wamar was to deliver the remaining vehicles to prevent further thefts. This change added about \$2.0 million to total contract costs.

Wamar also began the first turbine generator inspections at a time when the real conditions of the power plants were unknown. For many years the power plants across the country had been run to failure because the Iraqi government had forgone the required maintenance and safety procedures on the generators. As a result, U.S. government pre-award planning and defining project requirements, especially in a difficult security environment, created very real challenges for both Wamar and the government. Even though the inspections and repairs cost more and took longer to complete than planned, these cost increases were due mostly to unanticipated repairs that could not be seen until the inspections were started.

Overall, SIGIR believes that both JCC-I/A and GRD actively and effectively carried out their management and oversight responsibilities under these three contracts. While both agencies encountered problems throughout the contracts' performance periods, most of these problems were recognized, addressed and mostly resolved. However, JCC-I/A has yet to financially close out the contracts or account for missing contract files.

Previous SIGIR reports have included recommendations and/or lessons learned to address issues related to Iraq reconstruction project contract management and oversight. The major issues identified in this report—contract cost and schedule changes after contract awards, and contract administration, project management, and oversight—have been addressed in these prior reports. Accordingly, SIGIR includes no recommendations or lessons learned in this report.

Management Comments and Audit Response

SIGIR provided a draft of this report to the responsible agencies for comment. The U.S. Army Corps of Engineers generally agreed with the facts in the report. JCC-I/A also concurred with the report.

JCC-I/A provided an update on the location of contract files and of their closeout of the contracts. It noted the files of contracts W914NS-04-D-0121 and W91GXY-06-C-0050 had been identified and an inventory of these files showed that they were 90% complete. Closeout of these contracts is in process. Files for contract W91GXY-07-C-0014, however, have not been located.

Appendix A—Scope and Methodology

In June 2009, the Special Inspector General for Iraq Reconstruction (SIGIR) began its work on Project 9007 to audit three contracts awarded to Wamar International, Inc. (Wamar) to complete Iraq reconstruction projects. SIGIR's objectives for this report were to examine contract outcomes, cost, and oversight, emphasizing issues related to vulnerabilities to fraud, waste, and abuse. This audit was performed under the authority of Public Law 108-106, as amended, which also incorporates the duties and responsibilities of inspectors general under the Inspector General Act of 1978. SIGIR conducted its work from June through October 2009 in various locations in the United States and in Baghdad, Iraq.

To accomplish our audit objectives, we visited or held discussions with officials and/or reviewed data from the following organizations:

- Joint Contracting Command-Iraq/Afghanistan (JCC-I/A)
- U.S. Army Corps of Engineers/Gulf Region Division (GRD)
- Iraq Transition Assistance Office
- Defense Contract Audit Agency (DCAA)
- Wamar International

We obtained and reviewed relevant contract, financial, and other information from these organizations relating to the pre-award, award, oversight, and performance of Wamar on Iraq reconstruction contracts W914NS-04-D-0121, W91GXY-06-C-0050, and W91GXY-07-C-0014. We reviewed the contracts, task orders, delivery orders, associated modifications, and other related documentation from the contract files maintained by JCC-I/A and GRD.

To determine the overall cost and funding of the contracts and individual task orders, we used data in the contract files and financial data obtained from the U.S. Army Corps of Engineers' Financial Management System. To determine the outcome and oversight of the selected task orders and delivery orders, we used data in the JCC-I/A and GRD contract and project files, including the basic contracts, task orders, contract modifications, and scope of work changes; invoices that Wamar submitted for work under the task orders; daily, weekly and monthly progress reports on the work performed, and photographs of project sites.

The audit was conducted in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Use of Computer-processed Data

To perform this audit, SIGIR had direct access to data in the U.S. Army Corps of Engineers Financial Management System and used this access to identify obligations, expenditures, and unliquidated obligations for the task orders. This automated financial management system is intended to provide timely, accurate, and comprehensive financial information for all levels of

management, especially at the program and project management level, through interface with other information system programs. We used computer-processed data contained in this system to identify, verify, and crosscheck financial information on task orders contained in GRD and Wamar's contract files. This process showed that the computer-processed data we used was reliable.

Internal Controls

We did not examine Wamar's internal management and financial control systems. Rather, we relied on Wamar's invoices and accounting and purchasing contract files to identify indications of fraud, waste, and abuse. Since the work was largely complete at the time of our audit, we could not monitor construction progress. Further, we were unable to observe the condition of the turbine generator inspection projects at the time of or after their completion. Thus, we relied on available reports, site photographs, transfer documents, and discussions with government and Wamar officials for insight on the completed facilities.

We did not review the U.S. government or JCC-I/A's contract management system as a whole but did review controls and oversight of the specific inspections under the two contracts. We reviewed the controls used in awarding, managing, and administering these inspections. Specifically, we reviewed the management controls related to contract award, contract administration and management, oversight of the inspections, and completion of the inspections and repairs.

Audit Limitations

Because of the administrative and math errors in the 2006 inspection contract (W91GXY-06-C-0050), this document was not useful in establishing a baseline that would allow SIGIR to track requirements and costs. SIGIR determined that the most accurate and realistic estimates of requirements (though still incorrect and not without additional problems) were those in the price schedule of Modification P0001 issued on March 22, 2006. SIGIR based this determination on the relatively few changes that were made to the contract after that modification.

Prior Coverage

The following reports are related to this assignment:

Key Recurring Management Issues Identified in Audits of Iraq Reconstruction Efforts, SIGIR 08-020, 7/27/2008.

Agency Management of the Closeout Process for Iraq Relief and Reconstruction Fund Contracts, SIGIR 07-010, 10/24/2007.

Other Reports in the Series of Focused Contract Audits

Iraq Security Forces Facilities: Environmental Chemical Corporation Projects Achieved Results, but with Significant Cost Increases and Schedule Delays, SIGIR 10-001, 10/22/2009.

Developing a Depot Maintenance Capability at Taji Hampered by Numerous Problems, SIGIR 09-027, 7/29/2009.

Tikrit Location Command Project Achieving Contract Goals by Using Sound Management Practices, SIGIR 09-024, 7/29/2009.

Commander's Emergency Response Program: Hotel Construction Completed, but Project Management Issues Remain, SIGIR 09-026, 7/24/2009.

Commander's Emergency Response Program: Muhalla 312 Electrical Distribution Project Largely Successful, SIGIR 09-025, 7/24/2009.

Security Forces Logistics Contract Experienced Certain Cost, Outcome, and Oversight Problems, SIGIR 09-014, 4/26/2009.

Cost, Outcome, and Oversight of Iraq Oil Reconstruction Contract with Kellogg Brown & Root Services, Inc., SIGIR 09-008, 1/13/2009.

Cost, Outcome, and Oversight of Local Governance Program Contracts with Research Triangle, SIGIR 09-003, 10/21/2008.

Outcome, Cost, and Oversight of the Security and Justice Contract with Parsons Delaware, Inc., SIGIR 08-019, 7/28/2008.

Outcome, Cost, and Oversight of Water Sector Reconstruction Contract with FluorAMEC, LLC, SIGIR 08-018, 7/15/2008.

Outcome, Cost, and Oversight of Electricity-Sector Reconstruction Contract with Perini Corporation, SIGIR 08-011, 4/29/2008.

Outcome, Cost, and Oversight of Iraq Reconstruction Contract W914NS-04-D-006 SIGIR 08-010, 1/28/2008.

Outcome, Cost, and Oversight of Reconstruction of Taji Military Base and Baghdad Recruiting Center, SIGIR 08-004, 1/15/2008.

Interim Review of DynCorp International, LLC Spending Under Its Contract for the Iraqi Police Training Program, SIGIR 07-016, 10/23/2007.

Review of Bechtel's Spending Under Its Phase II Iraq Reconstruction Contract, SIGIR 07-009, 7/24/2007.

Appendix B—Funds Provided on Wamar Contracts

Table 4—Wamar Contracts as of September 17, 2009

Contract Number	Contract Description	Obligations	Disbursements	Balance
<i>Economic Support Fund (ESF)</i>				
1	W91GDW-09-C-4038 Gas Turbine Inspection, Testing & Repair	\$ 2,380,258	-	\$2,380,258
2	W91GXY-07-C-0009 Gas Turbine Inspection, Testing & Repair	37,919,754	\$37,919,754	-
3	W91GXY-07-C-0014 Gas Turbine Inspection, Testing & Repair	25,421,000	25,379,000	42,000
4	W91BXY-07-M-0020 Gas Recirculation Fan	278,000	278,000	-
5	W91GDW-07-M-0086 Spare Parts	45,660	45,660	-
6	W91GDW-08-M-0064 Electronic Cards	687,000	687,000	-
7	W91GXY-07-C-0003 Service for Combustion Inspection	3,980,000	3,980,000	-
8	W91GDW-07-C-4001 Management Workshops / Other Expenses	1,049,445	1,049,445	-
9	W91GDW-07-D-4042 GIS Capacity Development for Ministry of the Environment	451,896	451,896	-
Total ESF		\$72,213,013	\$69,790,755	\$2,422,258
<i>Iraq Security Forces Fund (ISFF)</i>				
10	W56HZV-09-C-0466 Purchase/Deliver Armored Vehicles	\$ 1,154,870	-	\$1,154,870
11	W91GY0-09-P-0380 DC to DC Converter + Shipping & Handling	557,000		\$ 557,000
12	W914NS-04-D-0121 Purchase/Deliver Armored Vehicles	16,921,500	16,921,500	-
13	W19GY0-07-M-0314 Purchase/Deliver Armored Vehicles for MoE	133,600	133,600	-
14	W91GY0-07-M-0355 Purchase/Deliver Armored Vehicles for NP	133,600	133,600	-
15	W91GY0-08-M-0447 Auto Trans/Power Steering Fluid Exchanger	19,748	19,748	-
Total ISFF		\$18,920,318	\$17,208,448	\$1,711,870
<i>Iraq Relief and Reconstruction Fund (IRRF)</i>				
	W914NS-04-D-0121 Purchase/Deliver Armored Vehicles	\$ 9,448,462	\$ 9,448,462	-
16	W914NS-05-M-0013 Purchase/Deliver Tactical Rescue Equipment	122,769	122,769	-
17	W914NS-05-M-1254 Purchase/Deliver Armored Vehicles + Extras	1,495,354	1,495,354	-
18	W914NS-05-M-2060 Liquid Fuel Nozzle Test Stand	128,625	128,625	-
19	W91GXX-06-M-0024 Equipment and Training	4,522	4,522	-
20	W91GXY-06-C-0050 Gas Turbine Inspection, Testing & Repair	34,670,500	34,670,500	-
21	W91GXY-06-C-0059 Emergency Repair of Khor Al Zubair Unit #5	4,285,400	4,285,400	-
22	W91GXU-06-C-0098 Emergency Spare Parts for Power Plants	1,044,205	1,044,205	-
23	W91GXY-06-C-0103 Nassiriyah Gas Skid Installation	1,693,660	1,693,660	-
24	W91GXY-06-M-0036 Liquid Fuel Nozzle Test Stand	643,500	643,500	-
25	W91GXY-06-M-0089 Emergency Spare Parts for Power Plants	20,722	20,722	-
26	W91GXY-06-M-0101 Emergency Spare Parts for Power Plants	829,325	829,325	-
27	W91GXY-06-M-0115 Emergency Spare Parts for Power Plants	4,991	4,991	-
28	W91GY1-06-M-0007 Mosul Dam Equipment Purchase, Phase 1	7,738	7,738	-
Total IRRF		\$54,399,773	\$54,399,773	
<i>Commander's Emergency Response Program (CERP)</i>				
29	W91GDW-07-C-2014 Mussayab Gas Tank Farm	\$ 4,630,000	\$ 4,630,000	-
Total CERP		\$ 4,630,000	\$ 4,630,000	
GRAND TOTAL		\$150,163,104	\$146,585,976	\$3,577,128

Appendix C—Description of Inspections

According to manufacturer documents and accepted industry language, an “inspection” is a maintenance term that includes both the inspection and repair of turbine generators. The types of inspections required under these two contracts are referred to as “shutdown” inspections because the units require disassembly of the turbines in varying degrees.

Combustion Inspection

According to GE turbine maintenance documents, a combustion inspection is a relatively short disassembly shutdown inspection of fuel nozzles, liners, transition pieces, tubes and retainers, spark plug assemblies, flame detectors, and other pieces of the turbines that are recognized as being the first to require replacement and repair in a good maintenance program. For each combustion inspection, Wamar was required to (1) disassemble the combustion components, (2) remove the turbine outer casing upper part, (3) remove the turbine stationary blade carrier upper part, (4) roll out the turbine stationary carrier lower part, and (5) replace the turbine blades and vanes if necessary. According to Wamar officials, this type of inspection should be performed at least every 4,000 hours of operating time or about every six months if the generators are run on natural gas or more frequently if crude oil is used. The initial cost of each combustion inspection, including service on all auxiliary systems, was approximately \$740,000; the cost of providing and refurbishing needed parts for this type of inspection was estimated at around \$3 million.

Hot Gas Path Inspection

According to GE documents, a hot path gas inspection is a more detailed inspection than a combustion inspection. The purpose of this inspection is to examine those parts exposed to high temperatures from the hot gases during the turbine’s combustion process. These inspections require the removal of all combustion transition pieces and the first-stage turbine nozzle assemblies. Removal of the second- and third-stage turbine nozzle segment assemblies is optional, depending upon the results of visual observations and measurements. As in combustion inspections, the contractor was required to (1) disassemble the combustion components, (2) remove the turbine outer casing upper part, (3) remove the turbine stationary blade carrier upper part, (4) roll out the turbine stationary carrier lower part, and (5) replace the turbine blades and vanes. According to Wamar officials, this type of inspection should be performed at least every 10,000 hours of operating time or about once a year if the turbine is run on natural gas. Again, if crude oil is used, the inspection interval should be reduced. The initial contracted cost of performing a hot gas path inspection, including service on all plant auxiliary systems was \$820,000, with an additional \$3.8 million to cover the cost of providing and/or refurbishing needed parts.

Major Overhauls

According to Wamar officials, this type of inspection should be performed at least every 30,000 hours of operating time, or about every three years, depending on the type of fuel used. Neither of the projects initially required a major overhaul of any of the units.

Appendix D—Acronyms

Acronym	Description
CERP	Commander's Emergency Response Program
CPA	Coalition Provisional Authority
DCAA	Defense Contract Audit Agency
DFI	Development Fund for Iraq
ESF	Economic Support Fund
GE	General Electric Company
GRD	U.S. Army Corps of Engineers/Gulf Region Division
IRRF	Iraq Relief and Reconstruction Fund
ISFF	Iraq Security Forces Fund
JCC-I/A	Joint Contracting Command – Iraq/Afghanistan
MoE	Iraq Ministry of Electricity
PCO	Project and Contracting Office
SIGIR	Special Inspector General for Iraq Reconstruction

Appendix E—Audit Team Members

This report was prepared and the audit conducted under the direction of David R. Warren, Assistant Inspector General for Audits, Office of the Special Inspector General for Iraq Reconstruction.

The staff members who conducted the audit and contributed to the report include:

Ziad Buhaissi

George Salvatierra

Robert Whitely

Michael Welsh

Appendix F—Management Comments

We provided a draft of this report to responsible agencies for comment; however, SIGIR has no recommendations in the report, and neither USACE nor JCC-I/A suggested changes to the report. USACE generally agreed with the facts as presented in the report and found it unnecessary to provide additional comments. JCC-I/A concurred with the conclusions of the report and provided an update on the status of the contracts' closeout and location of contract files. The Contract Closeout Task Force Office has identified two of the three contracts (W914NS-04-D-0121) and (W91GXY-06-C-0050). The inventory of all the contract files is 90% complete and the contracts' closeouts are in process. However, files for contract W91GXY-07-C-0014 have not been located.

Appendix G—SIGIR Mission and Contact Information

SIGIR’s Mission	Regarding the U.S. reconstruction plans, programs, and operations in Iraq, the Special Inspector General for Iraq Reconstruction provides independent and objective: • oversight and review through comprehensive audits, inspections, and investigations • advice and recommendations on policies to promote economy, efficiency, and effectiveness • deterrence of malfeasance through the prevention and detection of fraud, waste, and abuse • information and analysis to the Secretary of State, the Secretary of Defense, the Congress, and the American people through Quarterly Reports
Obtaining Copies of SIGIR Reports and Testimonies	To obtain copies of SIGIR documents at no cost, go to SIGIR’s Web site (www.sigir.mil).
To Report Fraud, Waste, and Abuse in Iraq Relief and Reconstruction Programs	Help prevent fraud, waste, and abuse by reporting suspicious or illegal activities to the SIGIR Hotline: • Web: www.sigir.mil/submit_fraud.html • Phone: 703-602-4063 • Toll Free: 866-301-2003
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