WEST BAGHDAD INTERNATIONAL AIRPORT SPECIAL FORCES BARRACKS BAGHDAD, IRAQ

SUSTAINMENT ASSESSMENT

SIGIR PA-07-100
APRIL 24, 2007

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SPECIAL INSPECTOR GENERAL FOR IRAQ RECONSTRUCTION

April 24, 2007

MEMORANDUM FOR DIRECTOR, IRAQ RECONSTRUCTION MANAGEMENT OFFICE
COMMANDING GENERAL, MULTI-NATIONAL SECURITY TRANSITION COMMAND-IRAQ
COMMANDING GENERAL, GULF REGION DIVISION, U.S. ARMY CORPS OF ENGINEERS

SUBJECT: Report on West Baghdad International Airport Special Forces Barracks, Baghdad, Iraq (Report Number SIGIR PA-07-100)

The Office of the Special Inspector General for Iraq Reconstruction is conducting a series of assessments to assess the current condition of completed projects subsequent to their transition to the Government of Iraq to determine whether the projects are likely to remain operational.

We are providing this report for your information and use. It addresses construction work performed on the West Baghdad International Airport Special Forces Barracks, Baghdad, Iraq, to determine if the project is likely to remain operational after its transition to the Government of Iraq. These assessments were made to provide you and other interested parties with real-time information on relief and reconstruction projects to enable appropriate action to be taken, if warranted.

The coordinated comments received from the Commanding General, Multi-National Security Transition Command-Iraq in response to a draft of this report addressed the recommendations, and the actions taken and planned should address the issues we identified. As a result, comments to this final report are not required.

We appreciate the courtesies extended to our staff. If you have any questions please contact Mr. Brian Flynn at brian.flynn@sigir.mil or at 914-360-0607. For public or congressional queries concerning this report, please contact SIGIR Congressional and Public Affairs at publicaffairs@sigir.mil or at 703-428-1100.

Stuart W. Bowen, Jr.
Inspector General

Special Inspector General for Iraq Reconstruction

SIGIR-PA-07-100 **April 24, 2007**

West Baghdad International Airport Special Forces Barracks Baghdad, Iraq

Synopsis

Introduction. This project assessment was initiated as part of our continuing assessments of selected Multi-National Security Transition Command - Iraq reconstruction activities. The overall objective was to determine whether projects are operating at the capacity stated in the original contract or task order objective. Special Inspector General for Iraq Reconstruction inspectors conducted this limited scope assessment in accordance with the Quality Standards for Inspections issued by the President's Council on Integrity and Efficiency. The assessment team included an engineer/inspector and an auditor/inspector.

According to the contract, the objective of the renovation project was to construct the West Baghdad International Airport Special Forces Barracks in Baghdad, Iraq. The contract's Scope of work included specific requirements and stated that work should adhere to International or Iraqi Codes as specified.

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, Special Inspector General for Iraq Reconstruction inspectors determined whether the project was operating at full capacity when transferred to Iraqi authorities and when observed by the inspectors on 3 March 2007.

Observations and Conclusions.
Overall construction appeared to meet Scope of Work requirements and the facility appeared to be able to operate at full capacity when observed by SIGIR inspectors on 3 March 2007. However, some maintenance or "sustainability" issues already have and likely could continue to negatively impact the capacity and capability of the barracks complex. The more significant sustainability issues included:

- Some bathroom floor drains in company barracks were plugged or drained very slowly, which caused flooding in the bathrooms. This very likely was caused by a lack of water needed to effectively flush toilets and move sewage solids through the piping system to the holding tanks. The sewage blocked the drains so that when water was introduced, the drains backed up and flooded the bathrooms. Inspectors verified that applicable waste water holding tanks were not full for those bathrooms that did not drain, while water supply tanks for affected bathrooms were empty.

- All four 150 kilovolt electrical generators valued at approximately $50,000 each and installed under the contract were not operational at the time of the site-inspection. While inspectors could not determine when or why the generators became inoperative, inspectors did observe that batteries were missing and engine

oil levels were not adequate at the time of site visits. Without operating generators, there is no back-up power system for the facility as was the intent of the Statement of Work.

- The roofs of at least three barracks leaked at several places where water accumulated around drain basins. This condition likely occurred because roof top debris (beverage cans and plastic bottles) blocked drain down spouts. As a result, too much water likely pooled on roof tops near the down spout basins and migrated down walls to the interior of the building. Unless drain down spouts are kept open and able to efficiently flow rain water off the roof, the likelihood is high that rain water will continue to pool on roofs and leak to the interior of the various buildings.

Recommendations. Multi-National Security Transition Command - Iraq and Iraq Reconstruction Management Office officials should coordinate with the appropriate Iraqi officials and request that Iraqi facility managers:

1. Implement procedures to schedule water deliveries frequent enough to ensure that no barracks facility within the complex is without water or monitor use and deliver water as needed to specific tanks in order to ensure that heavy use areas do not run out of water.
2. Develop a plan to make all generators installed during construction fully operational and routinely serviced by qualified personnel in the future.
3. Implement procedures to ensure that the roofs are kept free from debris (beverage cans and plastic bottles) in order to ensure that roof drain basins run free and do not plug.

Management Comments. On 22 March 2007, SIGIR sent a draft of this report to representatives from the United States Army Corps of Engineers Gulf Region Division, the Multi-National Security Transition Command – Iraq and the Department of State's Iraq Reconstruction Management Office for review and comment. Special Inspector General for Iraq Reconstruction received the following comments from the Multi-National Security Transition Command – Iraq on 13 April 2007 and from the United States Army Corps of Engineers Gulf Region Division on 14 April 2007:

Multi National Security Transition Command – Iraq Comments

Recommendation 1: The recommendation by the Special Inspector General for Iraq Reconstruction to have adequate supplies of water on-hand is valid. The Iraqi Joint Headquarters Logistics Directorate and Ministry of Defense - Directorate of Contracting have funded and executed a Life Support Contract which requires the vendor to provide potable water to the West Baghdad International Airport Base. The vendor appears to have fallen short of meeting the obligation. To resolve this issue, Multi-National Security Transition Command – Iraq advisors will work closely with Iraqi military officials to determine the root cause, develop a viable action plan, establish effective quality assurance procedures, and enforce the performance-based payment plan according to the contract.

Recommendation 2: The recommendation by the Special Inspector General for Iraq Reconstruction to have fully operational generators is valid. The Iraqi Joint Headquarters Logistics Directorate and Ministry of Defense Directorate of Contracting developed a Life Support Contract which requires the vendor to provide "Level 1 [routine/recurring]

maintenance" to the West Baghdad International Airport generators. This requires the contractor to maintain the generator oil and filters in accordance with the manufacturer's specifications. It also requires the contractor to maintain a two month supply of repair parts, filters, and oil for all generators. Again, the vendor appears to have fallen short of meeting the obligation. To resolve this issue, Multi-National Security Transition Command – Iraq advisors will work closely with Iraqi military officials to determine the root cause, develop a viable action plan, establish effective quality assurance procedures, and enforce the performance-based payment plan according to the contract.

The Iraqi military leadership also has a responsibility to stop looting parts from government property such as the missing batteries. For issues beyond Level 1 maintenance, the Iraqi Ministry of Defense, aided by Multi-National Security Transition Command – Iraq advisors, is establishing policies and procedures to repair generators at all bases. Because the system requires approvals by a number of senior Iraqi officials, it is slow and methodical but has been effective when properly documented and executed.

Recommendation 3: The Special Inspector General for Iraq Reconstruction's recommendation to ensure that drains are clear and debris is removed is valid. The Iraqi military leadership must play a role in preventing abuse of infrastructure, to include proper disposal of waste in order to ensure proper hygiene as well as to prevent damage. The use of the roof as a waste disposal area is completely unacceptable and must be addressed and enforced by the Iraqi base leadership. Multi-National Security Transition Command – Iraq advisors will inform Iraqi leaders of this issue so they can work the resolution, to include repairs.

U.S. Army Corps of Engineers Gulf Region Division

Recommendation 2: The Chief Engineer from the Gulf Region Division personally inspected the generators discussed in the recommendation and noted that they were not the original generators provided under the contract. The original contract provided five generators, one for each building, installed adjacent to the buildings. The Engineer believes the generators shown in the report were installed as part of a separate contract that did not involve the Gulf Region Division. They believe the purpose for the later installation was to provide power to the entire complex, including the administrative buildings adjacent to the complex.

Recommendation 3: The Gulf Region Division noted that the sewage system installed under the contract was a temporary solution designed to last from three to six months.

The complete text of the United States Army Corps of Engineers Gulf Region Division comments is included as Appendix E.

Evaluation of Management Comments. Multi National Security Transition Command – Iraq's comment are responsive to the recommendations. Although Multi-National Security Transition Command – Iraq correctly recognizes that the responsibility for continued operation and maintenance of the facility lies with the Iraqi Government, the Command's continued efforts to support the Iraqi Government's development of a facility sustaining program is essential to protecting the military and police assets constructed with Iraq Relief and Reconstruction Funds.

The United States Army Corps of Engineers Gulf Region Division's comments provide additional information to our inspection. At the time this report was issued, there was no resolution on the disposition of the five generators originally installed at the complex. The Special Inspector General for Iraq Reconstruction will coordinate with

representatives from the Corps of Engineers – Gulf Region Division and Multi-National Security Transition Command – Iraq to research the disposition of the original generators and issue a supplemental report if necessary. With respect to the Gulf Region Division's comment regarding the temporary nature of the sewage system, Special Inspector General for Iraq Reconstruction notes that adequate system maintenance is the issue and it is being addressed by the Multi National Security Transition Command – Iraq.

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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, Special Inspector General for Iraq Reconstruction (SIGIR) inspectors determined if the project was operating at full the capability as stated in the original contract or task order objective when transferred to Iraqi authorities and when observed during a site inspection on 3 March 2007.

Pre-Site Assessment Background

Contract and Contract Costs

Contract W916QW-05-C-0014, was awarded to an Iraqi contractor on 21 February 2005 to perform work in accordance with the Scope of Work (SOW), which is addressed later in this report. The initial contract, valued at $ 4,974,150.00, was a firm fixed price (FFP) contract, awarded in response to the contractor's 10 February 2005 bid. However, four contract modifications increased the contract's price to $5,205,003 and extended the period of performance to 31 August 2005. The contract and modifications were issued and administrated by the United States Army Corps of Engineers (USACE) Gulf Region Division-Central District (GRC).

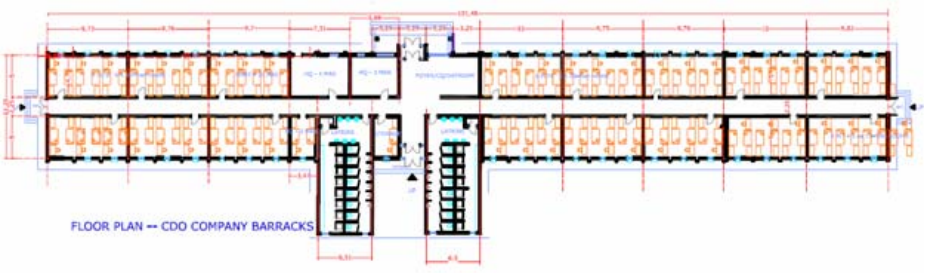
By reference, Federal Acquisition Regulations (FAR) 52.246-21, Warranty of Construction clause was incorporated into the contract and the standard one-year from date of acceptance by the Government construction warranty was applicable. However, the coverage period had expired approximately 5.5 months before SIGIR conducted the assessment.

Project Objective

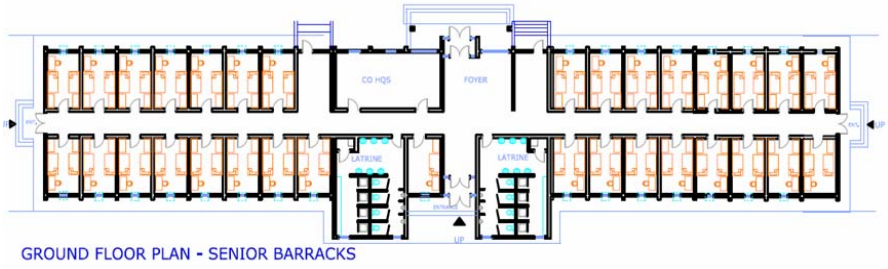
The project objective was to construct a barracks complex to house approximately 825 Iraqi Special Forces. Located in a secure compound at Baghdad International Airport (BIAP), the facility included construction of five single-story barracks designed to house 156 soldiers each and a single-story barracks for senior grade non-commissioned officer (NCO) soldiers.

Barracks Complex Design

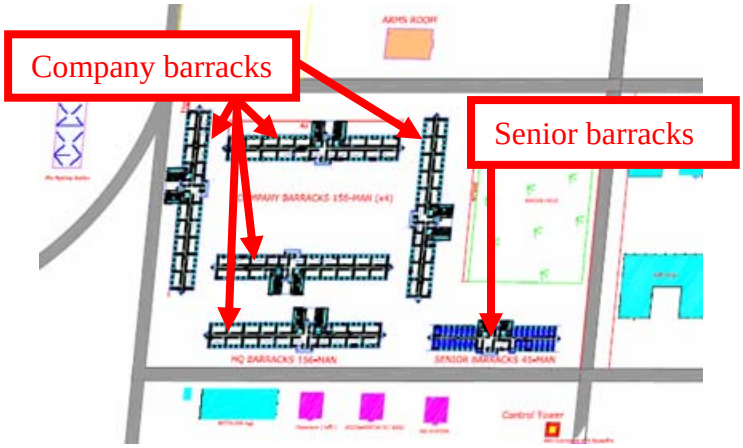
The project consisted of five company barracks and one barracks for senior grade soldiers. Figure 1 shows the design for the company barracks and Figure 2 shows the layout of the senior barracks. Additionally, Figure 3 illustrates the layout of the barracks complex as a whole.



Company Barracks Figure 1.



Senior Barracks Figure 2.



Barracks Layout Figure 3.

Scope of Work

The SOW required that the contractor construct six barracks buildings. Construction included masonry, masonry infill, reinforced concrete and plaster on the barracks. Indigenous Iraqi building materials and techniques were additionally required in all structures. Although the SOW was broadly scoped, key elements of the SOW included site preparation work; generators and switch gear; interior plumbing and bathrooms; interior lighting and plug-ins and heating, ventilation, and air conditioning (HVAC).

Construction Period and Turnover to Iraqi Authorities

The contract period of performance started 13 March 2005 when the contractor acknowledged the contracting officer's Notice to Proceed (NTP) and ended 31 August 2005. Acceptance (10 September 2005) of the project by the United States Army Corps of Engineers (USACE) and transfer (11 September 2005) to MNSTC-I was documented on a completed DD Form1354, Transfer and

Acceptance of Military Real Property. Subsequently, the barracks facilities was occupied by Iraqi Special Forces personnel.

Site Assessment

Assessment Approach

SIGIR assessed the construction and sustainment phases of the project by reviewing the contract and contract modifications, QA reports and photos taken during construction, the notice to proceed and DD 1354 documentation. In addition, discussions were conducted with the Victory Area Office Area Engineer (AE) in addition to the current and former Project Engineers (PE).

With the assistance of United States Army Corps of Engineers (USACE) personnel, SIGIR inspectors conducted site visits on 3 March 2007 and 17 March 2007. USACE engineers accompanied SIGIR while on site and open discussions were conducted as part of SIGIR's process to evaluate the facility.

While on-site, SIGIR inspectors observed the current condition of the facility and took numerous photos to document what was observed. In addition, the inspectors conducted limited discussions with available barracks occupants. To effectively evaluate the project's sustainability, inspectors focused on key elements of the construction project in order to compare what was required, what was constructed and provided to the Iraqi's, and what was observed on 3 March 2007 and 17 March 2007.

Construction Phase

Based on a thorough review of USACE Quality Assurance (QA) reports and numerous photos taken during construction and SIGIR inspector's site visits 3 and 17 March 2007, construction of the complex of barracks' appeared to meet SOW requirements. Accordingly, there was no evidence that construction related issues would preclude operating the barracks complex at full capacity.

USACE[1] Construction Progress Photo 1 shows that the construction took place on a level and accessible site that was adequately cleared before building construction started. USACE Construction Progress Photo 1 also shows that the cleared open field was prepared, dug and compacted in preparation for installation of a barracks foundation. Subsequently, the trench was used as the form for the barracks concrete footing.

[1] All pictures used in this report titled USACE Construction Progress Photo were provided by USACE. The photos were selected by the SIGIR Inspector from numerous photos taken by USACE QA personnel to show selected elements of the construction process.

USACE Construction Progress Photo 1. Before construction, the level and accessible site was cleared.

USACE Construction Progress Photo 2 shows sub-foundation rock was placed in the bottom of the trench and tied rebar was properly placed before the footing concrete was poured. USACE Construction Progress Photo 3 shows the footing after concrete was poured to make the buildings' footings.

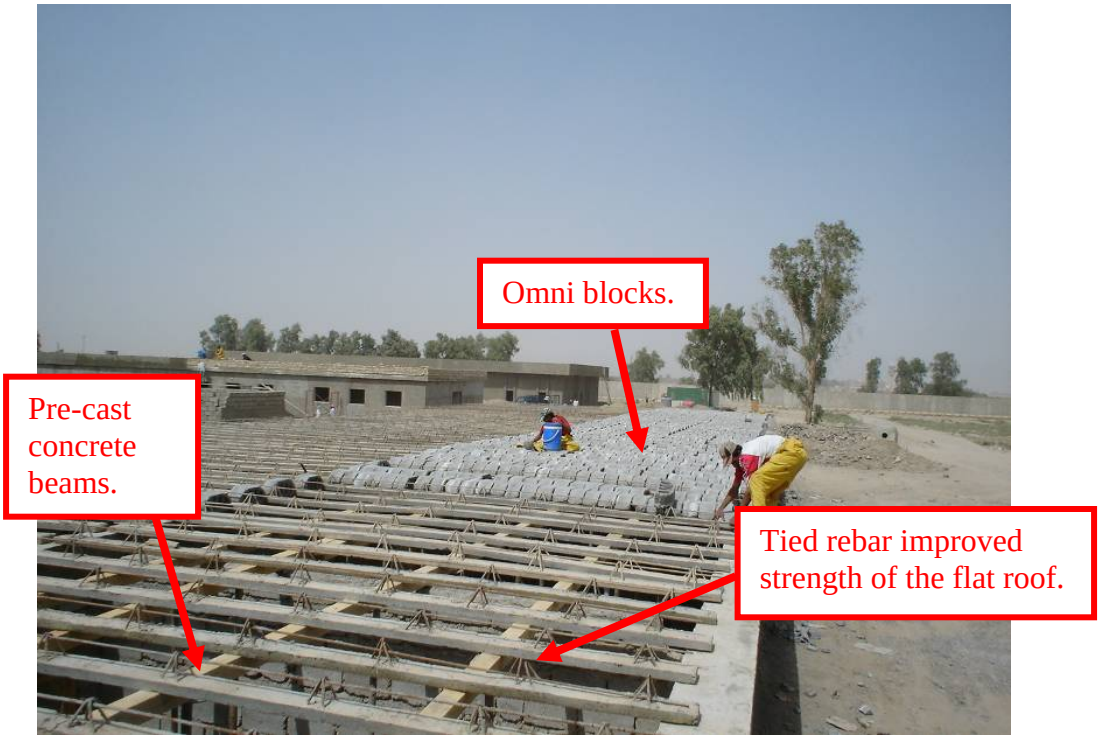
USACE Construction Progress Photo 2. Sub-foundation rock and tied rebar were properly placed.

USACE Construction Progress Photo 3. Trench following pouring concrete.

To meet SOW requirements, concrete blocks were placed on top of foundation footings to form the vertical load bearing walls of the buildings. USACE Construction Progress Photo 4 shows an example of such a wall before finish work, which included plastering and painting.

USACE Construction Progress Photo 4. Concrete blocks were used to make load bearing walls.

USACE Construction Progress Photos 5 and 6 illustrate stages of the construction of a barrack's roof. In USACE Construction Progress Photos 5, workers placed prefabricated "Omni" blocks on evenly spaced steel reinforced concrete beams to fabricate the roof's support structure system with tied rebar between beams. Subsequently, the roof's solid flatwork concrete was cast and clean dirt and sand was placed atop the flatwork casting and leveled before steiger plates (concrete tile) were laid in place. Overall, beam spacing and "Omni" block placement appeared even, straight and uniform.



USACE Construction Progress Photo 5. "Omni" blocks were placed on evenly spaced concrete beams.

USACE Construction Progress Photo 6 taken 12 June 2005 shows the completed flatwork casting on the Senior NCO Barracks. June is a hot month in Iraq and flatwork concrete cast/placed in such conditions can dry and cure too rapidly. To slow down the drying process, sand was used to build a hydration reservoir of water above recently cast concrete.

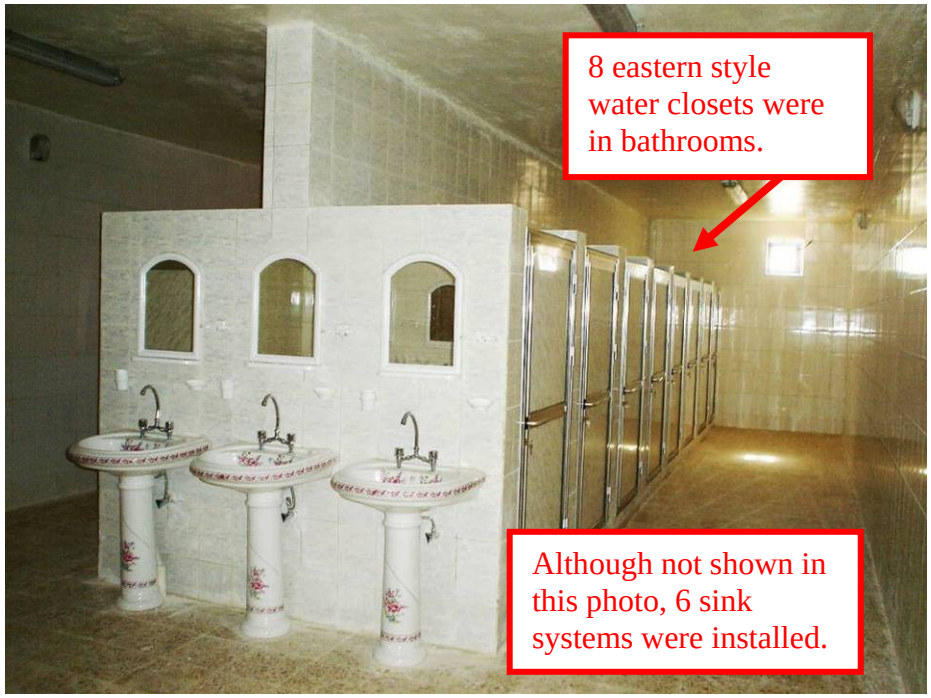
USACE Construction Progress Photo 6. Each Company Barracks roof was over 14,000 sq. ft.

A completed roof on one of the six barracks included in the project is shown in USACE Construction Progress Photo 7. Concrete plates appear to have been properly placed and uniformly sealed with mastic to prevent leaks.

USACE Construction Progress Photo 7. Roofs were sloped to facilitate drainage.

USACE Construction Progress Photos 8 and 9 illustrate that the interiors of the barracks were completed in a manner that met SOW requirements. Specifically, USACE Construction Progress Photo 8 shows lighting, interior plaster and split-unit through-wall HVAC. USACE Construction Progress Photo 9 shows that the bathroom included sinks with mirrors and sinks and eastern style latrines and showers.

USACE Construction Progress Photo 8. Example of a Company barracks sleeping room.



USACE Construction Progress Photo 9. Bathrooms included required sinks and eastern style water closets.

SIGIR inspectors found during their on-site inspection that the exterior of the barracks appeared to be in good condition. The exterior stucco was applied sufficiently thick and without noticeable cracks. Window and door frames were square and fit well enough that moving hinges operated freely. Site Photo[2] 1 shows an example of acceptable stucco work, windows, and split heating and cooling unit condensers.

Site Photo 1. Barracks exterior appeared to be in good condition and did not show signs of settling or other major construction problems.

During the on-site inspection, SIGIR inspectors found that residential areas of the barracks were, generally speaking, in good condition. The electrical switches, electrical outlets, fire alarms, the fire alarm system and breakers in the barracks, with a few exceptions, appeared to be in working order. Outlet and switch covers, for the most part, were in place and in good condition. Mosaic floor tiles were installed evenly with equal grout around their perimeter.

Site Photo 2 shows a typical residential area of a barracks. The inspectors observed that the windows opened and closed properly because they were proportionately framed and in good condition. In addition, the air conditioning unit was properly installed and the wiring was secured to the wall in a conduit. The floor tile also appeared to be installed properly.

[2] All Site Photos were taken on 3 and/or 17 March 2007

SIGIR Site Photo 2. Barracks residential area without noticeable construction or maintenance deficiencies.

As required in the SOW, the senior barracks restroom shown in Site Photo 3 was tiled from the floor to the ceiling. Approximately 17.5 months passed since the barracks complex was turned over to Iraqi officials and the SIGIR site inspection. At the time of the inspection, the bathroom tile work appeared in good condition. Showers, sinks and water closet toilets all appeared to be in working order. In addition, the inspectors observed that the bathroom drains worked well.

SIGIR Site Photo 3. Senior barracks bathroom with working sinks, showers, toilets and drains.

The barracks clinic is shown in Site Photo 4. As shown, the air conditioning unit appeared to be in good condition and installed properly. As in other rooms observed throughout the complex, painting and floor tile workmanship appeared to be satisfactory.

SIGIR Site Photo 4. Clinic appeared properly built.

Overall, interior and exterior construction appeared to meet SOW requirements. Rooms and hallways were finished with plaster and painted. Doorways and windows appeared to have been properly installed and fire extinguishers appeared in good condition and were full according to gauges.

Sustainment Phase

General Observations

During this phase of the project assessment, SIGIR inspectors reviewed the project to determine if Iraqi authorities had maintained and continued to operate the facility at the same capacity as when it was turned over to them. For this segment, the inspectors' sources of information were their observations during the on-site visits on 3 and 17 March 2007, the statements of U.S. Government personnel and those at the site. While on-site, SIGIR inspectors observed the current condition of the facility and took numerous photos to document what was observed. In addition, the inspectors conducted limited discussions with available barracks occupants.

While the project appeared to be operating at or close to full capacity, sustainability deficiencies were discovered. Sustainability deficiencies were noted in the barracks sewage system, generators, and a barracks roofs.

Sewage System

The SOW for the barracks construction included a water and sewage system. The design included external water tanks and a septic holding tank system. Water trucks replenished the water and sewage pump trucks removed the septic tanks periodically.

It appeared at the time of the inspection that a large number of the company bathrooms experienced drainage problems. Inspectors observed standing water in barracks bathrooms. According to dorm residents, the drainage problem was a chronic condition and had been a problem for some time. The residents claimed that the waste water backed up in many of the barracks' bathrooms and drained slowly or not at all (Site Photo 5).

Site Photo 5. Drainage problem in barracks bathroom.

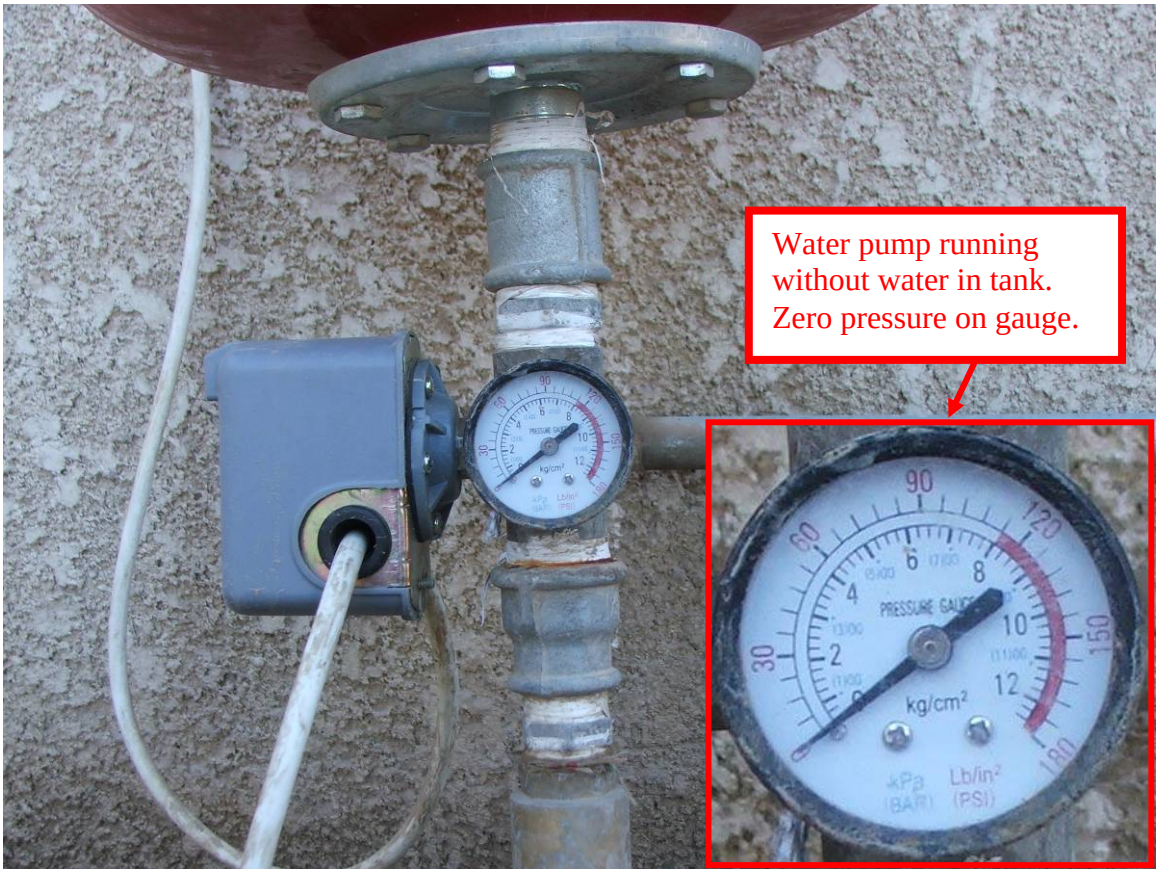
Site Photo 6 shows the clear standing water on the floor of a barracks bathroom.

Site Photo 6. Clear water backed up in floor drain of company barracks.

SIGIR inspectors examined the outer septic holding tank of the bathroom in Site Photo 6. Outside the barracks, in Site Photo 7, the bathroom septic holding tank did not appear to be full. With only a partially filled holding tank, the standing water appeared not to be septic backup. Accordingly, the water standing in the drain was clear which also indicates the backup was not septic system water.

Site Photo 7. Sewage tank outside company barracks.

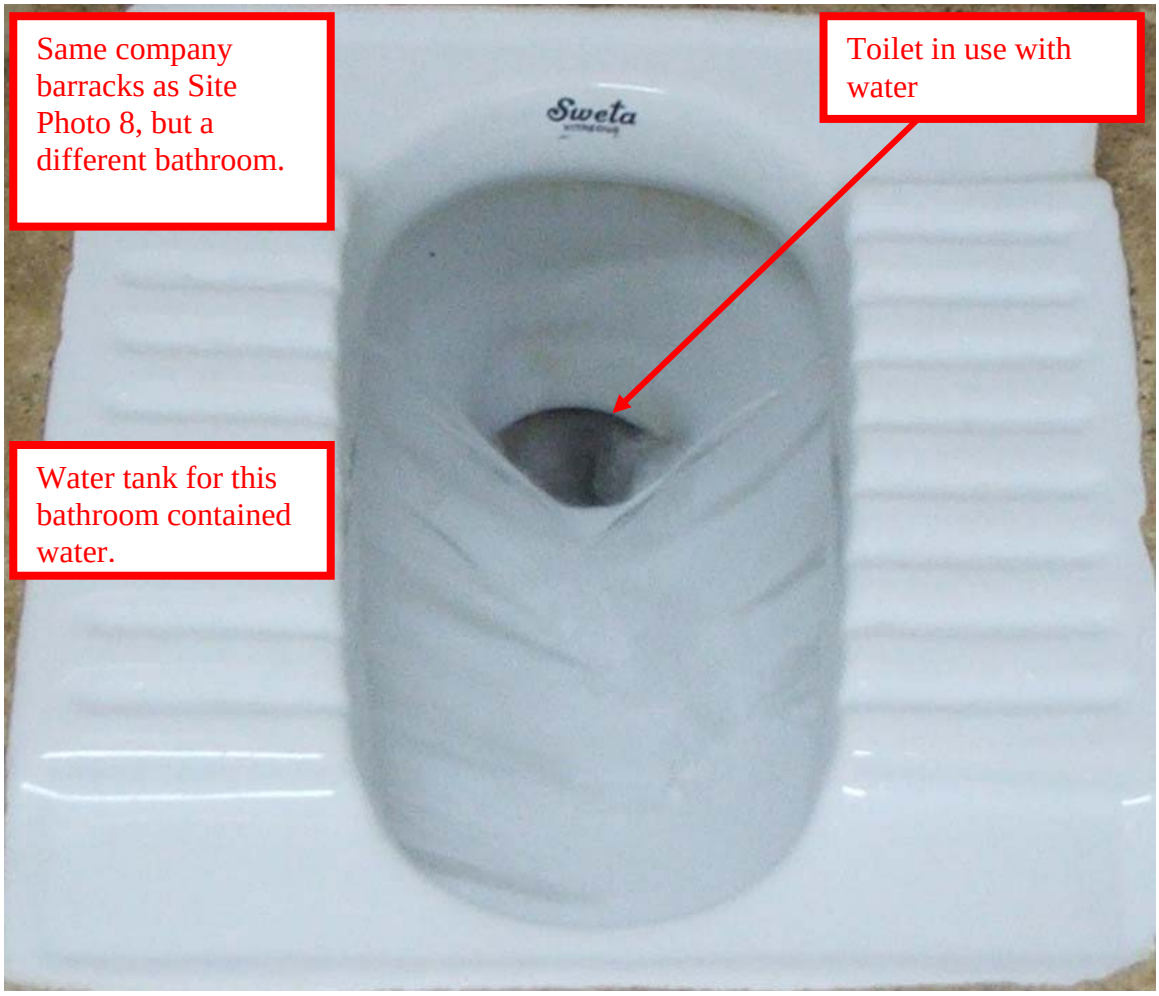
The water supply tank beside the septic tank appeared to be empty and SIGIR inspectors noted the pump was running despite the empty tank. Site Photo 8 shows the water pump pressure gauge with no pressure.



Site Photo 8. Water pump pressure gauge reads zero while running with no water

No water was available in the company barracks bathroom due to the empty tank. The toilets contained a dark coating of material inside the toilet bowl and dirt surrounding the interior. Despite the inability of the toilets to flush, the residents continued to use the toilets.

Although water tanks beside one company barracks bathroom contained no water, the barracks other bathroom water tanks were observed to contain water. The bathroom drains, as did the toilets, with flowing water. Site Photo 9 shows water flowing in the other barracks bathroom toilet. This toilet was free from material and dirt.



Site Photo 9. Toilet in use with water in the company barracks.

The problems with drainage and backup in the bathrooms were likely caused by an inadequate water supply to the bathroom. If insufficient water is provided to flush drains, clogs can occur as material is not transported out of the pipes. Continued use of a water based sewage and waste water collection system without adequate water will render drains unusable as buildup grows in the pipes. In order to correct the issue of drainage to nondraining bathrooms an adequate flow of water is required.

Generators

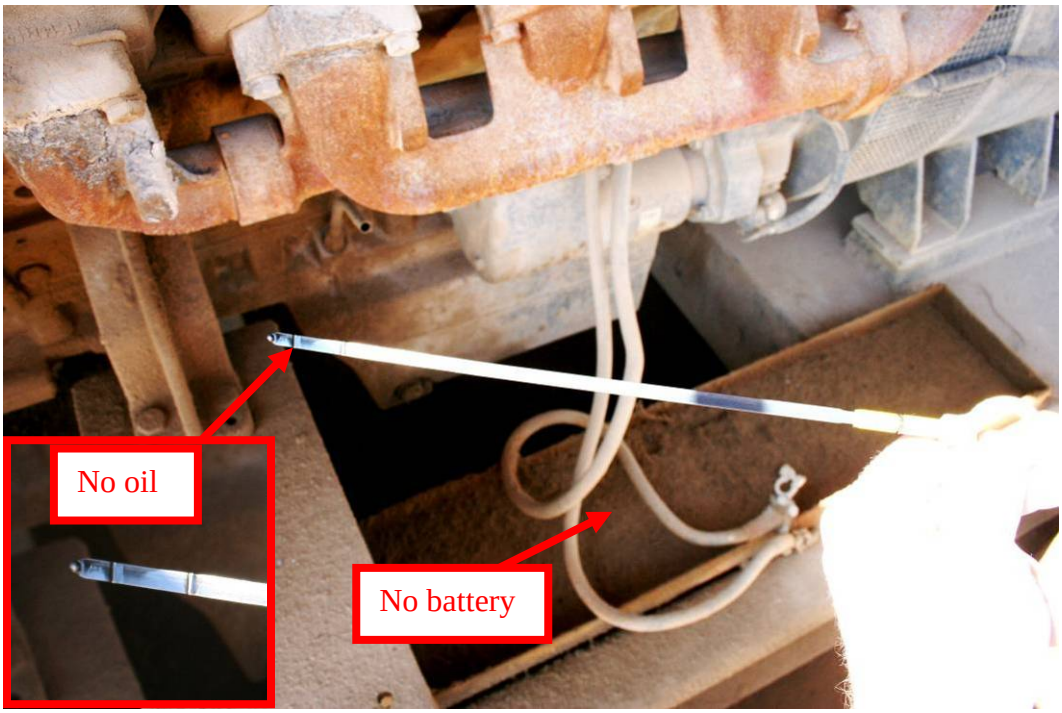
The SOW called for the installation of generators and necessary connections that, according to the Summary of Work, would provide adequate, reliable power to the facilities. At the time of SIGIR's visits to the barracks site, the facility was also supplied by electrical power that was transported to the barracks facility through electrical overhead lines.

SIGIR inspectors found four 150 kilovolt generators present on site (Site Photo 10.) According to USACE provided documentation, each generator cost approximately $50,000. The generators included three fuel storage tanks and electrical switching equipment.

All four generators did not function when inspected. Inspection of the generators revealed missing or nonfunctional batteries in all generators. The generators also contained an inadequate amount of oil. In Site Photo 11, a generator shows an empty battery and a dipstick with no oil.

It is likely that the generators were functioning at one time as spots of oil were visible under generators one and three. The exhaust pipes and mufflers on generators one and three also contained a higher degree of rust than generators two and four, which indicated that generators one and three ran more than generators two and four. The nonfunctional generators lacked batteries and oil, and the fuel tanks were empty.

Site Photo 10. Four generators installed but not operational during site visits.



Site Photo 11. All four installed generators were not operational.

Roof

The Summary of Work states that a "typical Iraqi" concrete roof slab, sand fill and concrete plate roofing system be employed for each of the barracks. Construction of a slab, sand and plate roofing system was accomplished. USACE Construction Progress Photos 6 and 7 illustrate the successful construction of the roofing system.

SIGIR inspectors noted that although a good roofing system existed, the roofs of the barracks were used for storage of various items. Site Photo 12 shows parts of beds, heavy vehicle bumpers and other items on the roof of a company barracks. Site Photo 13 shows metal cabinets/lockers and bed frames on the roof of a company barracks.

Site Photo 12. Old vehicle components, bed frames and other items were placed on the barracks' roof.

Site Photo 13. Various items visible on the roof of a company barracks.

Drains for the roof were found to be blocked by cans, plastic bottles and other debris. Site Photo 14 shows a flowering plant growing from one drain. Site Photo 15 shows another drain area that contained a number of bottles, cans and debris. A number of water stains were noted in this particular barracks. For example, Site Photo 16 shows the ceiling corner of the clinic below the drain seen in Site Photo 15. Water seepage stains were observed, along with what appears to be biological growth.

Site Photo 14. Plant growth in roof drain blockage.

Site Photo 15. Roof drain blocked above clinic.

Site Photo 16. Water stain and biological growth in a barracks clinic.

Another example of the water problem within the barracks is shown in Site Photo 17.

Site Photo 17. Evidence of water problem inside the senior barracks.

The water leaks and stains observed in at least three barracks were likely the result of water migrating through the walls from the roof. This was likely due to the debris on the roofs that blocked drains and plugged downspouts, which allowed standing water to seep into the walls. To eliminate water damage, it's recommended that all cans, bottles, and debris be removed from the roofs.

Conclusions

Overall construction appeared to meet Scope of Work requirements and the facility appeared to be able to operate at full capacity when observed by SIGIR inspectors on 3 March 2007. However, some maintenance or "sustainability" issues already have and likely could continue to negatively impact the capacity and capability of the barracks complex. The more significant sustainability issues included:

- Some bathroom floor drains in company barracks were plugged or drained very slowly, which caused flooding in the bathrooms. This very likely was caused by a lack of water needed to effectively flush toilets and move sewage solids through the piping system to the holding tanks. The sewage blocked the drains so that when water was introduced, the drains backed up and flooded the bathrooms. Inspectors verified that applicable waste water holding tanks were not full for those bathrooms that did not drain, while water supply tanks for affected bathrooms were empty.

- All four 150 kilovolt electrical generators valued at approximately $50,000 each and installed under the contract were not operational at the time of the site-inspection. While inspectors could not determine when or why the generators became inoperative, inspectors did observe that batteries were missing and engine oil levels were not adequate at the time of site visits. Without operating generators, there is no back-up power system for the facility as was the intent of the Statement of Work.

- The roofs of at least three barracks leaked at several places where water accumulated around drain basins. This condition likely occurred because roof top

debris (beverage cans and plastic bottles) blocked drain down spouts. As a result, too much water likely pooled on roof tops near the down spout basins and migrated down walls to the interior of the building. Unless drain down spouts are kept open and able to efficiently flow rain water off the roof, the likelihood is high that rain water will continue to pool on roofs and leak to the interior of the various buildings.

Recommendations

Multi-National Security Transition Command - Iraq and Iraq Reconstruction Management Office officials should coordinate with the appropriate Iraqi officials and request that Iraqi facility managers:

1. Implement procedures to schedule water deliveries frequent enough to ensure that no barracks facility within the complex is without water or monitor use and deliver water as needed to specific tanks in order to ensure that heavy use areas do not run out of water.
2. Develop a plan to make all generators installed during construction fully operational and routinely serviced by qualified personnel in the future.
3. Implement procedures to ensure that the roofs are kept free from debris (beverage cans and plastic bottles) in order to ensure that roof drain basins run free and do not plug.

Management Comments

On March 22, 2007, SIGIR sent a draft of this report to representatives from the U.S. Army Corps of Engineers Gulf Region Division, the Multi National Security Transition Command – Iraq and the Department of State's Iraq Reconstruction Management Office for review and comment. SIGIR received the following comments from the Multi-National Security Transition Command – Iraq on April 13, 2007 and from the U.S. Army Corps of Engineers Gulf Region Division on April 14, 2007:

Multi National Security Transition Command – Iraq Comments

Recommendation 1: The recommendation by SIGIR to have adequate supplies of water on-hand is valid. The Iraqi Joint Headquarters Logistics Directorate and Ministry of Defense - Directorate of Contracting have funded and executed a Life Support Contract which requires the vendor to provide potable water to the West BIAP Base. The vendor appears to have fallen short of meeting the obligation. To resolve this issue, Multi National Security Transition Command – Iraq advisors will work closely with Iraqi military officials to determine the root cause, develop a viable action plan, establish effective quality assurance procedures, and enforce the performance-based payment plan according to the contract.

Recommendation 2: The recommendation by SIGIR to have fully operational generators is valid. The Iraqi Joint Headquarters Logistics Directorate and Ministry of Defense Directorate of Contracting developed a Life Support Contract which requires the vendor to provide "Level 1 [routine/recurring] maintenance" to the West BIAP generators. This requires the contractor to maintain the generator oil and filters in accordance with the manufacturer's specifications. It also requires the contractor to maintain a two month supply of repair parts, filters, and oil for all generators. Again, the vendor appears to have fallen short of meeting the obligation. To resolve this issue, Multi-National

Security Transition Command – Iraq advisors will work closely with Iraqi military officials to determine the root cause, develop a viable action plan, establish effective quality assurance procedures, and enforce the performance-based payment plan according to the contract.

The Iraqi military leadership also has a responsibility to stop looting parts from government property such as the missing batteries. For issues beyond Level 1 maintenance, the Iraqi Ministry of Defense, aided by Multi National Security Transition Command – Iraq advisors, is establishing policies and procedures to repair generators at all bases. Because the system requires approvals by a number of senior Iraqi officials, it is slow and methodical but has been effective when properly documented and executed.

Recommendation 3: SIGIR's recommendation to ensure that drains are clear and debris is removed is valid. The Iraqi military leadership must play a role in preventing abuse of infrastructure, to include proper disposal of waste in order to ensure proper hygiene as well as to prevent damage. The use of the roof as a waste disposal area is completely unacceptable and must be addressed and enforced by the Iraqi base leadership. Multi National Security Transition Command – Iraq advisors will inform Iraqi leaders of this issue so they can work the resolution, to include repairs.

U.S. Army Corps of Engineers Gulf Region Division

Recommendation 2: The Chief Engineer from the Gulf Region Division personally inspected the generators discussed in the recommendation and noted that they were not the original generators provided under the contract. The original contract provided five generators, one for each building, installed adjacent to the buildings. The Engineer believes the generators shown in the report were installed as part of a separate contract that did not involve the Gulf Region Division. They believe the purpose for the later installation was to provide power to the entire complex, including the administrative buildings adjacent to the complex.

Recommendation 3: The Gulf Region Division noted that the sewage system installed under the contract was a temporary solution designed to last from three to six months.

The complete text of the U.S. Army Corps of Engineers Gulf Region Division comments is included as Appendix E.

Evaluation of Management Comments

Multi National Security Transition Command – Iraq's comment are responsive to the recommendations. Although Multi National Security Transition Command – Iraq correctly recognizes that the responsibility for continued operation and maintenance of the facility lies with the Iraqi Government the Command's continued efforts to support the Iraqi's Government's development of a facility sustaining program is essential to protecting the military and police assets constructed with Iraq Relief and Reconstruction Funds.

U.S. Army Corps of Engineers Gulf Region Division's comments provide additional information to our inspection. At the time this report was issued, there was no resolution on the disposition of the five generators originally installed at the complex. SIGIR will coordinate with representatives from the Corps of Engineers – Gulf Region Division and Multi National Security Transition Command – Iraq to research the disposition of the original generators and issue a supplemental report if necessary. With respect to the Gulf

Region Division's comment regarding the temporary nature of the sewage system, SIGIR notes that adequate system maintenance is the issue and it is being addressed by the Multi National Security Transition Command – Iraq.

Appendix A. Scope and Methodology

We performed this project assessment from January through March 2007 in accordance with the Quality Standards for Inspections issued by the President's Council on Integrity and Efficiency. The assessment team included an Engineer/Inspector and an Auditor/Inspector.

In performing this Project Assessment we:

- Reviewed relevant documentation to include the contract and SOW, contract modifications, design documentation and the DD Form 1354;
- Reviewed USACE Quality Assurance Reports and related construction progress photos taken by USACE officials during construction;
- Conducted substantive field level discussions with the USACE Area Engineer and Project Engineer;
- Conducted site visits 3 and 17 March 2007; and,
- Briefed the initial fieldwork with USACE GRC Commander, USACE GRC Deputy Commander, Area Engineer and Project Engineer on 15 March 2007. Following our 17 March 2007 site visit, SIGIR inspectors briefed and discussed conclusions with the USACE AE and PE before returning to the International Zone.

Appendix B. Acronyms

BIAP	Baghdad International Airport
BOQ	Bill of Quantities
CJSOTF	Combined Joint Special Operations Task Force
FAR	Federal Acquisition Regulations
FFP	Firm Fixed Price
GRC	Gulf Region District-Central
HQ	Headquarters
IP	Iraqi Police
IRRF	Iraq Relief and Reconstruction Fund
IRMO	Iraq Reconstruction Management Office
J-7	Engineering Staff Section
MNSTC-I	Multi-National Security Transition Command-Iraq
O/M	Operations and Maintenance
PCO	Project and Contracting Office
PM	Program Manger
RMS	Resident Management System
QA	Quality Assurance
QC	Quality Control
QM	Quality Management
SIGIR	Special Inspector General for Iraq Reconstruction
SOW	Scope of work
USA	United States Army
USACE	United States Army Corps of Engineers

Appendix C. Report Distribution

Department of State

Secretary of State
    Senior Advisor to the Secretary and Coordinator for Iraq
    Director of U.S. Foreign Assistance/Administrator, U.S. Agency for International Development
        Director, Office of Iraq Reconstruction
    Assistant Secretary for Resource Management/Chief Financial Officer, Bureau of Resource Management
U.S. Ambassador to Iraq
    Director, Iraq Reconstruction Management Office
    Mission Director-Iraq, U.S. Agency for International Development
Inspector General, Department of State

Department of Defense

Secretary of Defense
Deputy Secretary of Defense
Under Secretary of Defense (Comptroller)/Chief Financial Officer
    Deputy Chief Financial Officer
    Deputy Comptroller (Program/Budget)
Deputy Assistant Secretary of Defense-Middle East, Office of Policy/International Security Affairs
Inspector General, Department of Defense
Director, Defense Contract Audit Agency
Director, Defense Finance and Accounting Service
Director, Defense Contract Management Agency

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
Chief of Engineers and Commander, U.S. Army Corps of Engineers
    Commanding General, Gulf Region Division
    Chief Financial Officer, U.S. Army Corps of Engineers
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 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, Department of Health and Human Services
Inspector General, U.S. Agency for International Development
President, Overseas Private Investment Corporation
President, U.S. Institute for Peace

Congressional Committees and Subcommittees, Chairman and Ranking Minority Member

U.S. Senate

Senate Committee on Appropriations
- Subcommittee on Defense
- Subcommittee on State, Foreign Operations and Related Programs

Senate Committee on Armed Services
Senate Committee on Foreign Relations
- Subcommittee on International Operations and Organizations, Democracy and Human Rights
- Subcommittee on International Development and Foreign Assistance, Economic Affairs and International Environmental Protection
- Subcommittee on Near East and South and Central Asian Affairs

Senate Committee on Homeland Security and Governmental Affairs
- Subcommittee on Federal Financial Management, Government Information, Federal Services and International Security
- Permanent Subcommittee on Investigations
- Subcommittee on Oversight of Government Management, the Federal Workforce, and the District of Columbia

U.S. House of Representatives

House Committee on Appropriations
- Subcommittee on Defense
- Subcommittee on State, Foreign Operations, and Related Programs

House Committee on Armed Services
House Committee on Oversight and Government Reform
- Subcommittee on Government Management, Organization, and Procurement
- Subcommittee on National Security and Foreign Affairs

House Committee on Foreign Affairs
- Subcommittee on Middle East and South Asia
- Subcommittee on International Organizations, Human Rights, and Oversight

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:

William Tweedy
Angelina Johnston
Lloyd Wilson

Appendix E. Management Comments – U.S. Army Corps of Engineers

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS
GULF REGION DIVISION
BAGHDAD, IRAQ
APO AE 09348

REPLY TO
ATTENTION OF

CEGRD-CG

14 April 2007

MEMORANDUM FOR Special Inspector General for Iraq Reconstruction, US Embassy Annex, M-202, Old Presidential Palace, APO AE 09316

SUBJECT: SIGIR Draft Report – West Baghdad International Airport Special Forces Barracks, Baghdad, Iraq (SIGIR PA-07-100)

1. This memorandum provides the Gulf Region Division (GRD) response to the subject draft project assessment report.

2. Although there were no recommendations addressed to GRD, the following comments are provided to add clarity to the discussion.

a. Tom Semotuk, Gulf Region Central District, Chief of Construction, personally verified the generators indicated on pages 15 and 16 of the draft report are not the generators provided under contract W916QW-05-C-0014. This contract provided five generators, one for each building, installed adjacent to the buildings. We believe that the generators shown in the report were installed as part of a later, separate non-GRD contract that was intended to supply power to the entire complex, including the administrative buildings on either side of the barracks.

b. Pages 12 to 15 of the draft report discuss problems found with the sewage system. However, the water and septic tanks were installed as an interim measure until Multi-National Security Transition Command – Iraq (MNSTC-I) completed a permanent system. The interim system was never intended nor designed to be a permanent solution and was not included in the original Statement of Work provided by MNSTC-I. The interim system was designed to be used for 3 to 6 months and to our knowledge, the permanent system was never installed. However, we recommend you confirm that with MNSTC-I.

3. Thank you for the opportunity to provide our written comments to be considered for incorporation in the final assessment report.

4. If you have any questions, or need additional information, please contact Mr. Milton Naumann at 540-665-5021 or Milton.L.Naumann@tac01.usace.army.mil.

for MICHAEL J. WALSH
Brigadier General, USA
Commanding