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United States Department of State
and the Broadcasting Board of Governors
Office of Inspector General

Office of Audits

Audit of the Design and Construction of the New Embassy Compound in Baghdad, Iraq

Report Number AUD/IQO-09-25, October 2009

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Office of Inspector General

PREFACE

This report was prepared by the Office of Inspector General (OIG) pursuant to the Inspector General Act of 1978, as amended, and Section 209 of the Foreign Service Act of 1980, as amended. It is one of a series of audit, inspection, investigative, and special reports prepared by OIG periodically as part of its responsibility to promote effective management, accountability and positive change in the Department of State and the Broadcasting Board of Governors.

This report is the result of an assessment of the strengths and weaknesses of the office, post, or function under review. It is based on interviews with employees and officials of relevant agencies and institutions, direct observation, and a review of applicable documents.

The recommendations therein have been developed on the basis of the best knowledge available to the OIG and, as appropriate, have been discussed in draft with those responsible for implementation. It is my hope that these recommendations will result in more effective, efficient, and/or economical operations.

I express my appreciation to all of those who contributed to the preparation of this report.

A handwritten signature in black ink, appearing to read "H. W. Geisel".

Harold W. Geisel
Acting Inspector General

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EXECUTIVE SUMMARY

In 2005, Congress authorized \$592 million in emergency funding for the New Embassy Compound (NEC) in Baghdad, Iraq, with the intent of having the construction completed within 24 months of the project start date. This is the second of two Office of Inspector General (OIG) reviews of contracts related to that design and construction. In December 2008,¹ OIG audited contract competition for selected NEC contracts.

The current audit was conducted by OIG, with technical assistance provided by a team of engineers from the U.S. Army Corps of Engineers (USACE).² OIG and USACE (referred to collectively in this report as “we”) performed work in the Washington, DC, area and traveled to Baghdad, Iraq, during October 2008.

We examined five contracts awarded to First Kuwaiti Trading and Contracting (First Kuwaiti) for about \$470 million that were administered by the Emergency Project Coordination Office (EPCO) during construction. EPCO was set up by the Bureau of Overseas Buildings Operations (OBO) to manage the project, and it did not use established OBO resources. The primary objective of this audit was to determine whether the NEC Baghdad met the approved contract requirements for the construction of facilities and major components and systems and whether EPCO required and implemented the appropriate quality control and commissioning programs in accordance with established requirements. We also reviewed whether EPCO adequately discharged its contract administration responsibilities.

As a result of construction deficiencies, incomplete and undocumented design work, additional maintenance charges attributable to inadequate quality control and commissioning procedures, and unrecovered liquidated damages and interest on unauthorized advance mobilization payments, we recommend that the Department of State attempt to recover more than \$132 million from First Kuwaiti.

¹ *Procurement Competition for the New Embassy Compound at Baghdad, Iraq* (AUD/IQO-09-04, Dec. 2008).

² OIG entered into an Interagency Support Agreement with USACE in August 2008 to participate in a review of the NEC Baghdad. USACE provided independent professional services in engineering and technical fields and independently evaluated construction of facilities at the NEC Baghdad. (Composition of the team is described in Appendix A).

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Specifically, we found that although the construction of the approximately \$600 million NEC in a war zone in 34 months was a significant accomplishment, considerable construction deficiencies remained because designs for the facilities had not been completed and approved and quality control and commissioning procedures were inadequate. Without a valid design and robust quality control and commissioning activities, the Department cannot be assured that the NEC complies with contract and Department requirements, as well as with applicable building codes. We recommend the Department attempt to recover an estimated \$43.2 million from First Kuwaiti to bring construction deficiencies to contract standards. Specifically, the \$43.2 million construction deficiencies consisted of the following:

- \$4.6 million to repair safe areas, which are vital to protecting staff in emergency situations but which were not constructed according to contract specifications.
- \$14 million to install seismic bracing, which is required for safeguarding fire protection lines and other critical mechanical systems that First Kuwaiti had not completed.
- \$200,000 to correct deficiencies at the water treatment plant.
- \$1.7 million to repair the NEC wall surfaces and concrete walkways that were improperly installed and are now subject to cracking.
- \$200,000 to replace motor pool vehicle lifts that are not serviceable.
- \$500,000 to repair the NEC's power plant for inadequate air flow because changes to the configuration of the power plant were not supported by appropriate design work.
- \$11 million in additional operating costs for the less efficient power plant equipment over its lifetime.
- \$4.4 million to repair the NEC's power distribution system because First Kuwaiti substituted a less reliable system, including using nonstandard wiring.
- \$500,000 to complete and correct functions of the building automation system that is critical to monitor, measure, and optimize energy usage.
- \$4.6 million to correct fire protection systems because the walls in the housing units were not compliant with code and fire protection water mains were improperly constructed.
- \$1.5 million to correct plumbing deficiencies at over 200 locations at the NEC.

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In addition, we estimated that approximately \$33 million should attempt to be recovered from First Kuwaiti for incomplete and undocumented design work. Also, we identified that as a result of First Kuwaiti's inadequate quality control program, it should be held accountable for additional maintenance charges of approximately \$38 million that could carry over into future years. Further, we estimated recovering approximately \$3.8 million from First Kuwaiti because commissioning activities either were not performed or were performed incorrectly.

As a separate stand-alone organization, EPCO did not adequately discharge its contract administration responsibilities. EPCO was managed by an individual who did not enforce contract provisions, most notably design and construction requirements, which resulted in many of the construction deficiencies listed. Of prime significance, construction deficiencies prevented the contracts from being completed on time, and Embassy personnel could not move as planned to the more secure facilities at the NEC. Even though First Kuwaiti did not meet the required contract completion dates for three contracts, covering housing, infrastructure, and support facilities, EPCO did not require First Kuwaiti to pay \$10.9 million in liquidated damages. EPCO also approved \$69.1 million in advance mobilization payments that were not authorized by the contracts and did not require First Kuwaiti to pay \$3.3 million in interest for the use of those funds. EPCO approved contractor invoices without adequate documentation and did not require First Kuwaiti to comply with the reporting requirements of the Cargo Preference Act.

We also reviewed the award of contracts for housing, infrastructure, and support facilities and found the Department generally followed applicable procurement regulations. However, the solicitations did not stipulate the relative weight of factors in awarding the NEC contracts, as required by the Federal Acquisition Regulation (FAR 15-204-5(c)). This requirement would have assisted bidders in identifying the importance of the contract schedule in relation to cost during the contract award process.

In June 2009, we briefed OBO and Bureau of Administration (A Bureau) contracting officials on the tentative results of our work. Officials from both bureaus agreed with the findings presented. OIG provided the draft report to the A Bureau, the Bureau of Diplomatic Security (DS), the Bureau of Near Eastern Affairs (NEA), OBO, and Embassy Baghdad. The A Bureau and OBO provided written comments to the recommendations.

In its response, the A Bureau stated, "The contracting officer will prepare a letter to the contractor, detailing each of [the OIG] recommendations and request consideration from the contractor in each amount recommended by the OIG." The A Bureau requested that OIG provide the contracting officer information detailing the basis for computing the \$132 million in costs recommended for recovery from First

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Kuwaiti and also stated that it will “develop an AQM [Office of Acquisitions Management] procedure requiring contracting officers of major construction projects to periodically review contractor invoices” for compliance with documentation requirements contained in FAR 52.232-5. In addition, the A Bureau agreed to structure current review procedures to ensure that future contract competitions comply with FAR 15.204-5(c) concerning the requirement to identify the relative weight of factors for cost, price, and schedule.

The A Bureau’s response meets the intent of OIG’s recommendations to recover \$132 million from the contractor attributable to construction deficiencies; incomplete and undocumented work; additional maintenance charges incurred because of inadequate quality control and commissioning procedures; and contract noncompliance, including liquidated damages and interest for an unauthorized advance. OIG and USACE will provide the contracting officer the requested support for the \$132 million in questioned contract costs.

Included in the response from the A Bureau and OBO were comments from the Office of the Legal Adviser.

OIG believes the contracting officer’s request for recovery of funds from First Kuwaiti should be based on any legal mechanism available to it, including the latent defects or gross mistakes provisions of the Inspection of Construction Clause pursuant to FAR 52.246-12.

In its response, OBO stated that “stand alone project offices [such as EPCO] are a mistake” and that this type of structure will not be used in the future. OIG considers OBO’s proposed action responsive to our recommendation.

The responses from the A Bureau and OBO are presented in their entirety as Appendices B and C, respectively. DS, NEA, and Embassy Baghdad did not provide comments.

BACKGROUND

In 2005, Congress authorized \$592 million in emergency funding for construction of the New Embassy Compound (NEC) in Baghdad, which was to include office, housing, and support facilities; infrastructure; project supervision; and construction security.³ Congress intended that the construction of the NEC be completed within 24 months of the project start date.⁴

OBO directs the worldwide building program for the Department and the U.S. Government community serving abroad under the authority of chiefs of mission. OBO has followed a standard embassy design approach since 2001 in constructing new embassies overseas that includes a design-build contract delivery process and standardized building design concepts. OBO officials estimate that based on experience, design and construction normally take 36 months for a large embassy, and the new Embassy Baghdad was projected to be the largest U.S. Embassy in the world.

To meet a 24-month schedule, OBO created a separate office, known as the Emergency Project Coordination Office (EPCO) or the Iraq Project Coordination Office,⁵ to implement the construction of the NEC Baghdad. In January 2005, OBO hired a personal services contractor (PSC) to be the managing director of EPCO. The office was staffed mainly with PSCs. An OBO Civil Service employee who had an architectural background was appointed the contracting officer's representative (COR) for the NEC contracts and served in Baghdad, while a Civil Service employee who had a mechanical engineering background was appointed the Alternate Contracting Officer's Representative (ACOR) and served at EPCO offices in Rosslyn, Virginia. The Bureau of Administration, Office of Logistics Management, Office of Acquisitions Management (A/LM/AQM), manages, plans, and directs the Department's acquisitions programs and conducts contract operations in support of activities worldwide. The A/LM/AQM Facilities, Design, and Construction Division establishes acquisition agreements for OBO's design and construction requirements with the private and public sectors. This division awarded the competitive contracts for the NEC Baghdad based on technical evaluations completed by EPCO.

³ H.R. Conf. Rpt. 109-72.

⁴ Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Tsunami Relief Act, 2005 (Pub. L. No. 109-113, May 11, 2005).

⁵ The term "EPCO" will be used throughout this report.

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A/LM/AQM awarded a site-clearing contract to First Kuwaiti Trading and Contracting (First Kuwaiti) on June 2, 2005; task order 2, pre-engineered buildings, to First Kuwaiti on June 29, 2005; and three design-build contracts, SALMEC-05-C0020 for housing (housing contract), SALMEC-05-C0019 for infrastructure (infrastructure contract), and SALMEC-05-C0021 for support facilities (support facilities contract), to First Kuwaiti on July 8, 2005. The contract to construct the Chancery for \$84,999,650 was awarded to First Kuwaiti on September 16, 2005, as a sole-source contract, when the Department exercised its authority under the Foreign Service Buildings Act of 1926. The contracts for the NEC are summarized in Table 1.

Table 1. NEC Baghdad Contracts

Contract No.	Purpose	Contractor	Original Contract Amount
SALMEC-05-D-0042			
Task Order 0001	Site Clearing	First Kuwaiti	\$8,362,500
Task Order 0002	Pre-Engineered Buildings	First Kuwaiti	5,499,999
SALMEC-05-C0019	Infrastructure ^a	First Kuwaiti	90,588,227
SALMEC-05-C0020	Housing ^b	First Kuwaiti	197,613,292
SALMEC-05-C0021	Support Facilities ^c	First Kuwaiti	82,269,967
SALMEC-05-C0030	Chancery (Unclassified)	First Kuwaiti	84,999,650
SALMEC-06-C0049	Guard Camp	First Kuwaiti	20,853,240
SALMEC-06-C0004	Engineering and Support	MILVETS Systems Technology, Inc.	4,704,554
SALMEC-07-D0033	Operations & Maintenance	PAE Government Services, Inc.	176,963,311
Total			\$671,854,740

(Source: A/LM/AQM.)

^a Included Compound Access Control Facilities, Utility Building and associated facilities, and Guard Towers.

^b Included the Chief of Mission Residence, Deputy Chief of Mission Residence, Staff Housing Units, and Office Building Annex.

^c Included the Compound Recreational Facility, Marine Security Guard Quarters, Sports Fields/Courts, Commissary, Community Center, Unclassified Interim Office Building, Warehouse, Motor Pool, Gas Station, and General Services Office Support Annex.

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Department concerns were raised in October 2007 pertaining to the operability of fire suppression systems. However, the COR accepted the NEC facilities as being substantially complete on December 16, 2007. The OBO director retired on December 31, 2007. The succeeding director of OBO asked the OBO Fire Protection division director (who is also the OBO fire marshal) to verify the current status of the NEC's fire suppression systems in January 2008. OBO determined that the responsible subcontractor had tested only a limited capacity of the fire system and would not attest that the fire suppression systems met fire and building codes.

The Director of OBO then discussed the fire suppression systems with the managing director of OBO's Project Execution Office. The project execution director agreed that the NEC commissioning⁶ had not been adequately performed and that the customary offices of OBO needed to take a greater role in the contract oversight and acceptance process. The director said that OBO needed to start from "square one" and identify NEC deficiencies.

Staff from the OBO offices outside EPCO began to make trips to Baghdad, including OBO fire engineers in January 2008 and other office teams in February 2008. Finally, in March 2008, the OBO director directed all of his senior staff to cancel their vacations scheduled for March and immediately go to the NEC to address the deficiencies. The March team included the Director, Office of Construction Management; the contracting officer (CO); an attorney; and representatives from the Office of Fire Protection. OBO and First Kuwaiti agreed to a consolidated punch list of 966 uncorrected defects.

The Department's Under Secretary for Management signed the Certificate of Occupancy for the NEC Baghdad on April 14, 2008. This certified that the U.S. Embassy facility in Baghdad had been completed; that all systems were functioning as designed; that the facility was usable and complete; and that it could be occupied as of April 14, 2008. The decision was driven by the need to move Embassy staff from trailers that had served as temporary housing into NEC concrete apartments to reduce the risk from mortar attacks and rocket fire.

⁶ Commissioning is designed to provide an unbiased, objective view of the installation and function of all facility components and building systems.

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OBJECTIVES

We initiated this audit to determine whether the Department followed applicable regulations, policies, and procedures in the design and construction of the NEC in Baghdad, Iraq. The first report, issued in December 2008, reviewed contract competition for selected awards. This audit addresses contractor compliance with contract terms and conditions, quality of construction, and contract administration as these factors pertain to selected NEC contracts in Baghdad. This audit had four objectives:

1. To determine whether the NEC Baghdad met the approved design-build contract specifications for the major components and systems.
2. To determine whether EPCO required and implemented the appropriate quality control programs.
3. To determine whether commissioning processes were carried out in accordance with established requirements.
4. To determine whether OBO's EPCO adequately discharged its contract administration responsibilities during the construction of the NEC Baghdad.

The audit's scope, methodology, and prior audit coverage are detailed in Appendix A.

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AUDIT RESULTS

FINDING A. MULTIPLE SIGNIFICANT CONSTRUCTION DEFICIENCIES EXIST AT THE NEC BAGHDAD

We found that the quality of the NEC construction was significantly deficient in multiple areas because designs for the facilities had not been completed and approved and quality control and commissioning procedures were inadequate. Without a valid design and robust quality control and commissioning activities, the Department cannot be assured that the NEC complies with contract and Department requirements as well as applicable building codes. As a result, we estimated that approximately \$43.2 million should be recovered to bring construction deficiencies to contract standards and approximately an additional \$33 million for incomplete and undocumented design work. In addition, we identified that First Kuwaiti's inadequate quality control program will result in additional maintenance charges of approximately \$38 million over 15 years. We also recommended recovery of approximately \$3.8 million from the contract because commissioning activities either were not performed or were performed incorrectly.

NEC Construction Deficiencies

The significant areas of construction deficiencies we found and the applicable contract requirements are discussed in the sections that follow.

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Seismic Bracing

Seismic bracing is normally provided for the protection of fire lines and other critical mechanical systems in the event of an earthquake. The statement of work for the chancery required that the contractor

... engage the services of a seismic consultant, to either provide the seismic design for the building structures, or perform technical oversight of the seismic design provided by the structural engineer. Additionally, the seismic consultant shall be responsible for ensuring that all nonstructural seismic protection fully complies with project requirements in the design and construction of the project. The seismic consultant shall be a U.S. registered structural engineer with at least 10 years demonstrated experience in the seismic design of similar buildings.

We found no evidence that First Kuwaiti or its subcontractors considered seismic bracing in their analyses or designs. In addition, we found that First Kuwaiti did not provide seismic bracing for fire protection lines and mechanical or electrical equipment in those parts of the NEC facilities built by First Kuwaiti. Seismic bracing was provided in the controlled access area spaces of the chancery built by a cleared American contractor under a separate contract. The COR told us that she did not enforce the seismic bracing requirement because an OBO fire protection engineer told her that although bracing was required by code, it was “no big deal.” The COR also stated that she was unaware that Baghdad was in an earthquake zone.

The NEC Baghdad facilities consist of approximately 1.4 million square feet of floor space, and facilities constructed in geographic areas that have similar seismic concerns add an additional \$10 per square foot of floor space. First Kuwaiti received a net savings of \$14 million when it did not provide seismic bracing for NEC facilities. Therefore, we estimate that it would cost OBO \$14 million to perform the necessary design and retrofit of seismic bracing required for the NEC Baghdad facilities.

Water Treatment Plant

We determined that First Kuwaiti did not provide design calculations or other data to support the construction of the water treatment and the wastewater treatment plants. The infrastructure contract (section C.1.1) required First Kuwaiti to do the following:

Provide design and construction services for a utility building, one water treatment plant with below grade storage tanks, a wastewater treatment plant, storm drain main outfalls and pond, primary utility distribution services to serve the entire compound, six Compound Access Control Facilities (CAC), nine guard towers, and adjacent surface parking lots for the New Embassy Compound (NEC) using the design-build delivery method.

We found that the water treatment plant will require attention to correct identified deficiencies. First, there was an undocumented and unauthorized connection between the water treatment plant and Baghdad's water system. Second, the water storage tank at the treatment plant did not appear to be properly coated, thereby allowing the treated water to draw unwanted materials out of the raw concrete. Third, the Embassy's total water storage requirements were still in question. First Kuwaiti provided "rooftop" water tanks on each of the NEC facilities in an attempt to satisfy the storage requirements for domestic or potable water and for fire suppression. These tanks were not indicated in the concept drawings, nor was there supporting design documentation to indicate the capacity of each tank.

The infrastructure contract request for proposal (RFP) originally required the contractor to design and install two underground potable water storage tanks, each with a capacity of 1 million liters. One tank was later deleted by amendment; however, what remained in the contract were various consumption requirements, stated as gallons per occupant. We found that a summary of total storage requirements did not exist and that a distinction between potable water and fire protection water requirements had not been made. The ACOR said that the addition of rooftop tanks was proposed by First Kuwaiti to meet the overall NEC water requirements. Nevertheless, design information did not exist to support the volume of water contained in the rooftop tanks and whether overall NEC water demand requirements and life and safety requirements for fire protection have been met.

We recommend that the water treatment plant connection to Baghdad city water be disabled; the water storage tank at the water treatment plant be drained, dried, and coated; and design documentation be provided. We estimated a cost of approximately \$200,000 for coating the water treatment tank, including the costs of providing temporary tanks to continue providing water to the NEC while the required work is being performed.

Exterior Wall and Concrete Surfaces

Based on our inspections of various building and road surfaces, we determined that surfaces were improperly installed and were in need of repair. The most susceptible exterior surfaces requiring repair were those where the underlying structures were subject to vibration; repeated heating and cooling; and other forces that hastened the delamination process, in which the exterior plaster/render (stucco) coating separates or peels off in thin layers. Both the initial application and subsequent repairs did not appear to meet contract requirements or manufacturer's instructions. Specifically, the plaster/render was applied at a thickness far greater than that recommended and had not been secured by a wire mesh to the concrete substrate. Because of the improperly installed plaster, NEC buildings were vulnerable to falling plaster debris, especially above doorways and other pedestrian areas. We recommend that the defective plaster be removed and replaced at an estimated cost of \$1.1 million.

In addition, we found that nearly all of the concrete "flatwork" (for example, walkways and roadways) exhibited pervasive cracking, which will ultimately shorten its service life. We estimated that an additional \$600,000 would be required to repair the pervasive cracking of the flat concrete surfaces.

General Services Office (GSO) Motor Pool Lifts

The Motor Pool concept drawings required an operating motor pool with six lifts and required that all equipment, material, and articles incorporated into the work covered under the contract be new. We found that the six vehicle lifts installed in the GSO motor pool were not capable of safely raising the armored vehicles used by Embassy Baghdad. Specifically, a test of the lifts showed that one armored vehicle could not properly get onto the lift and that support points could not clear the front axle. USACE found that the installed lifts did not match the approved shop drawings and "appear to have been used/abused prior to installation and they do not contain safety locks." A former facilities manager for Embassy Baghdad stated that the configuration of the motor pool had been changed from the concept design so that several of the six lifts were now inaccessible. We estimated that it would cost \$200,000 to replace all six lifts properly and safely.

Utility Building and Power Plant

First Kuwaiti changed the rating, arrangement, and configuration of the NEC's power generation and distribution systems. The primary modification at the Utility Building/Generator Plant altered the 10 2-megawatt configuration in the Department's RFP design documents to 18 1-megawatt generators. We were unable to

obtain any detailed design information to support this change. The change in a smaller generator configuration created an overheating problem for the 18 generators because of the lack of airflow through the penthouse louvers located on the roof of the Utility Building. The constricted airflow was the result of poor ventilation design. As a result, electrical power generation was limited from its design capacity. Therefore, to safely increase power generation, we identified changes to the power plant air intake system costing approximately \$500,000. However, those changes alone will not allow 100 percent power generation.

The changed configuration from 10 2-megawatt generators to the less efficient 18 1-megawatt generators also resulted in lower voltage generators and step-up transformers being used to increase the lower voltage 400-volt generators to 11,000-volt distribution. The lower-voltage transformers caused significant power losses and required additional cooling to the building, which increased operating costs. We estimated that the less efficient system from the original design would increase power generation operating costs by \$11 million over the expected life of equipment, or the next 15 years.

Power Distribution

We found that the power distribution provided by First Kuwaiti did not adequately supply electrical wiring, control, and distribution systems because First Kuwaiti had substituted a less expensive and less reliable system. First, the high voltage compound distribution was not the redundant system required by the infrastructure contract. A redundant-looped system should “feed” each load from two directions by either of two independent feeders, providing the ability to bypass an electrical failure. The hostile climate and the high-threat security environment at the NEC Baghdad make this increased reliability essential. Second, the wiring was foreign made and did not meet the color coding, labeling, and insulation types required by the National Electric Code. The non-marked wiring used at the NEC Baghdad makes operation and maintenance and expansion work more difficult because the maintenance personnel will have more difficulty telling which size and type of conductors they are working with. Finally, First Kuwaiti did not install filters to remove distortion on the electrical system. Harmonic distortion and other “dirty” power issues produce less efficient use of generated power and cause damage and premature failure of motors and other electrically powered devices. (Certain devices, including digital computers, are especially vulnerable to “dirty” power.)

Establishing a continuous loop system around the NEC will require all electrical substations to be connected to the utility building. While the extent and appropriate cable sizing for the looped system can be determined only through detailed design

work, we estimated that the system will require approximately 10,000 linear feet of cabling inside concrete and encased in a 4-inch conduit at a total cost of approximately \$1 million. We also estimated that the noncompliant wiring will cost \$2.8 million to replace and that an additional \$400,000 to \$600,000 would be required to install the harmonic filters to prevent the distortion within the power system. In sum, we estimated that it would cost between \$4.2 million and \$4.4 million to correct the deficiencies to the electrical wiring, control, and distribution systems at the NEC Baghdad.

Building Automation System

We found that the NEC's building automation system (BAS) was missing many connection points, could not operate key functions, and was not completely or properly connected to several critical systems within the NEC. For example, the BAS was not wired to the primary power distribution network and other critical infrastructure systems, such as water and wastewater treatment. A BAS is a digital centralized system that collects data from various systems within the NEC to monitor, measure, and optimize energy usage. At various points or locations, system performance is measured, such as temperature, pressure, and valve positions. Specifically, we found that First Kuwaiti did not comply with the following infrastructure contract requirement:

A power monitoring and control system shall be provided to monitor the normal utility power, all main switchgear distribution feeder breakers, the status of the generators, outdoor medium voltage switches and other loads as prescribed in the specifications and drawings. Interface the power monitoring and control system with the building automation system (BAS) via vendor-provided software over a compound-wide network.

We concluded that the intended purpose of the BAS was not realized, since communication throughout the NEC could not be performed in real time. As a result, energy and maintenance functions were not remotely monitored by an operator. We estimated a cost of \$500,000 so that OBO could add the necessary functions to the BAS at the NEC, including six missing connections to the GSO building, 30 missing connections to the utility building, and one missing connection to the wastewater treatment plant.

Fire Protection Systems

We found deficiencies in NEC Baghdad fire protection systems. Some fire protection systems were improperly designed or improperly installed, thereby increasing the risk that the NEC facilities and personnel would not be adequately protected. We estimated the cost to correct the fire-related deficiencies attributed to First Kuwaiti would be approximately \$4.6 million. These deficiencies are detailed as follows:

- *Housing Fire Protection Systems Not Code Compliant*

We identified three NEC buildings (a staff diplomatic apartment (SDA), the chancery, and the deputy chief of mission residence) in which the quality of First Kuwaiti's workmanship was poor and not consistent with applicable fire codes. For example, in one SDA inspected by USACE, fire dampers were not installed and sealed correctly; 2-hour fire-rated walls, which are typically composed of two 5/8 inch gypsum boards (on both sides of galvanized metal framework), were not constructed with proper materials or to the required dimensions; and dryer vent ductwork was incorrectly installed and did not have accessible clean-outs. As a result, the potential existed for the spread of fire between floor levels in the SDAs, and the improperly constructed dryer vents allowed lint to accumulate in the ductwork, which poses an imminent fire hazard. In the chancery, fire dampers were missing.

During our visit to the NEC Baghdad, embassy facilities management agreed to take immediate action to address the fire hazard by providing an external exhaust to the dryer vent system. However, the defective fire walls and dampers remain in all 900 apartments and will require complete removal of the fire walls and repositioning of the dampers. This work will need to be done while the apartments are being occupied, which will require that temporary walls be constructed to prevent the spread of dust, and security measures will have to be taken to allow for continued occupancy. We estimated that correcting the fire walls and dampers would cost approximately \$2 million and that correcting the dryer vent systems would cost \$1.5 million.

- *GSO Warehouse Not Fire Code Compliant*

We determined that the fire suppression system in the GSO warehouse needed to be upgraded. The sprinkler system in the GSO warehouse (approximately 7,500 square feet) was designed for open shelving of less than 3.6 meters in height; however, the shelving installed by First Kuwaiti was approximately 6.1 meters high with solid shelving. This shelf height significantly increased the water demands of the sprinkler system and further reduced the effectiveness of the installed sprinkler system. In addition, solid shelving was installed in lieu of the specified open-type shelving. Solid shelving further increased the sprinkler requirements and necessitated

in-rack sprinklers. The risk for damage attributable to a fire is greater because both of these factors require more sprinklers in the system so that the system is capable of delivering a sufficient amount of water to the fire. We estimated the cost to upgrade the existing fire suppression system at approximately \$300,000; however, since Embassy Baghdad, not First Kuwaiti, built the shelves, First Kuwaiti is not responsible for the deficiency.

- *Fire Mains Not Properly Installed*

The NEC Baghdad's underground exterior water main distribution system was not installed in accordance with provisions contained in the infrastructure contract and National Fire Prevention Association Standard 24. These provisions required the water main distribution system to be installed with thrust blocks, which prevent movement and separation of pipe joints at bends and other vulnerable areas. At the direction of OBO Fire Protection Division officials, First Kuwaiti replaced noncompliant PVC pipe with ductile iron pipe. First Kuwaiti then encased the fire protection and often the adjacent domestic water pipe in concrete. OBO fire representatives told us that they agreed that the installed fire mains did not meet Standard 24. USACE stated that this action will make future leak detection and maintenance difficult, as hardened concrete will have to be removed to access the water lines. In addition, these lines did not have the required indicator valves at their connection points to the adjacent building. These indicator valves are required to show that fire service is available to the building.

According to USACE, removing and replacing the concrete-encased "bends or elbows" with 200 individual thrust blocks and restraints will require the removal of sidewalks, roadways, and other surface features; demolition of several hundred cubic yards of concrete currently encasing the pipes; installation of 200 new properly configured blocks; and the restoration of damaged features. We estimated the cost of these repairs to be approximately \$1.1 million.

Plumbing Systems

We found plumbing and air conditioning system deficiencies for most facilities at the NEC that were in violation of the International Plumbing Code and were contrary to the contract specifications and the as-built drawings. For example, plumbing and air conditioning components were not properly installed and correctly tested. The International Plumbing Code requires that drains be trapped in order to prevent the backflow of noxious gases from sewage back into occupied spaces. OBO's supplement to this code, which was contained in the RFP, requires these traps to have primers, that is, water sources that ensure that the traps will always contain

enough water to effectively seal the traps. We observed that the lack of traps allowed noxious gases to be drawn back into occupied spaces, including the residence of the deputy chief of mission. Specifically, at the residence, a floor drain and a condensate drain were tied together, which allowed the fumes to be aspirated back into the air handler that served the entire household. We estimated that over 200 locations within the NEC Baghdad will require plumbing traps to be installed at a cost of approximately \$1.5 million.

Incomplete and Undocumented Design Documentation

EPCO did not enforce compliance with the design submission for the NEC contracts in support of housing, infrastructure, and support facilities and the chancery. As a result, significant construction deficiencies exist, the Department is not aware of the construction specifications of the NEC facilities, and future operation and maintenance of the NEC facilities will be adversely impacted.

Contract Award

The initial solicitations for the housing, infrastructure, and support facilities contracts were prepared by a U.S. architect and engineering firm and included concept/bridging drawings and other specifications. The bidders were instructed that these drawings were not complete designs and that their work would include completing the design work as well as constructing the NEC facilities. First Kuwaiti's proposals indicated that building construction designs that were not required by the solicitation had been 100 percent completed. The technical evaluation panel (TEP) Chairman indicated that this factor influenced the board's recommendation, in part, to award the contracts to First Kuwaiti. We believe that it was highly unlikely that construction designs of the caliber to initiate construction work were 100 percent complete at the time First Kuwaiti submitted its initial proposals. The CO did not verify that First Kuwaiti's designs were 100 percent complete and awarded the contract to First Kuwaiti based on TEP's recommendation.

According to OBO planning officials not associated with EPCO, the process to develop, review, and approve designs for new embassy compounds typically takes about 9 months, to which approximately 8 percent of the project budget is devoted—considerable time and cost to incur by a contractor prior to contract award. The officials added that the requirements included in the solicitation and project documents were not sufficiently detailed to enable more than rudimentary bid designs

to be completed. The completed and government-approved design work was not forthcoming by First Kuwaiti, and this ultimately affected the quality and timeliness of construction.

Contract Requirements

First Kuwaiti did not provide all of the required reports and calculations, including electrical, mechanical, plumbing, and fire and environmental protection; seismic ground motion and water supply reports; and boundary, topographic, and utility location surveys. These deficiencies occurred because First Kuwaiti and its subordinate designers, vendors, and subcontractors failed to provide the basic contract deliverables required in a design-build contract. Each NEC contract required a progressive elaboration of design, which was to be performed by specialized and licensed professionals in areas such as geotechnical, structural, fire protection, water and wastewater, and lighting. The design data should have been incrementally reviewed and accepted by the Department, and the contractor should have addressed comments before moving to the next step of the design or construction.

The ACOR for the NEC contracts attempted to get First Kuwaiti to complete the design information as late as August 2006, but the ACOR was unsuccessful. For example, in August 2006, the ACOR sent an e-mail to the EPCO Managing Director stating the following:

I got from [the EPCO Document Control Officer] that according to your telephone conversation, we will not receive the 100% design drawings that we have been expecting from FKTC [First Kuwaiti], I understand that you want us to approve as noted any future submissions and to keep constructing without Rosslyn having an approved set of design drawings. Doing this will prevent us from managing the design or ensuring that program requirements are being met prior to it being built.

The ACOR stated that the last set of design drawings, which were dated December 2005, were only 75 percent complete and were received by EPCO in February 2006. (This was in contrast to First Kuwaiti's solicitation, which stated that the designs were 100 percent complete.) EPCO had many comments and discussed them with First Kuwaiti's design agent with the understanding that the comments would be addressed and the design would be resubmitted in March 2006. However, no additional design information was provided to EPCO in Washington, DC, and the COR in Baghdad approved product submittals after equipment had been installed and without the benefit of an approved design.

We ultimately concluded that we could not determine what level of design was accomplished, find indications that the designs had been performed in accordance with the standards established in the contracts, or find that the designs had been reviewed and approved/accepted by authorized Department representatives.

Future Operations Impacted by Lack of Design

The lack of required design and design documentation will ultimately impact operations and maintenance of NEC facilities. According to USACE, the lack of sound design information makes the development and execution of proper operation and maintenance plans very difficult. Future modifications and repairs will have to be made without the benefit of accurate design information, plans, and specifications. Future operating and maintenance costs will be higher than they otherwise would have been if the facility had been logically designed and constructed and the design had been documented. We believe that the lack of design information will ultimately impact all basic utility (power, water, and wastewater) operations because the facility maintenance staff and their contractor did not have a full understanding of how the systems are intended to work.

We believe, to ensure the safety and compliance of the NEC facilities, including ongoing revisions and correcting known deficiencies, that all of First Kuwaiti's records, especially those related to the design of facilities, should be obtained for review and properly recorded. If properly licensed professionals were not used to perform the design, or if the designs were not completed as specified, the Department should hire a competent architect-engineer firm to analyze the as-built conditions and prepare an opinion of the facility capabilities.

Design Work Performed Was Not Commensurate With Costs Incurred

We estimated the Department did not receive approximately \$33 million in design work required by the contracts. USACE stated that the standard cost of design for projects the size of the NEC Baghdad would normally be about 5 percent of the construction cost. Moreover, the standard 5 percent does not include the extensive investigations, complex security systems, interior design, or international coordination that should have been necessary for the NEC Baghdad. USACE therefore recommended that 8 percent of the estimated project cost be used to estimate the value of a proper design. This would have put the value of the required design work at \$36.8 million (8 percent of \$461 million). We estimated that approximately 10 percent of the effort for design work had been completed. As a result, we estimated that the value of the incomplete and undocumented design work was approximately \$33 million (90 percent of the \$36.8 million).

Contractor Did Not Adhere to Contract Quality Control Requirements

First Kuwaiti did not provide specific quality control operating plans that could be tied to project schedules. These plans could have provided an effective quality control program throughout the design and construction phases of the NEC contracts, and an effective quality control program may have mitigated the construction deficiencies that we previously identified in this report.

Contract Requirements

The purpose of an ongoing quality assurance program is to ensure that a contractor has effective quality control over construction and that defects noted are corrected during construction. According to division 1, section 1401, of all First Kuwaiti contracts, the contractor was to maintain a quality control staff that was sufficient in size, adequately trained, and experienced to perform assigned quality control responsibilities. In addition, pursuant to section 6.2.24-25 of OBO's Construction and Commissioning Guidebook, the contractors should develop a quality control plan. This section of the Guidebook also provided quality and control guidelines that the project director should follow, which include developing a quality control operating plan, outlining implementation and enforcement procedures, and performing acceptance inspections.

Lack of Quality Control

Our review of available documentation concluded that EPCO did not require First Kuwaiti to fully implement quality control programs. USACE stated that an effective quality management process on a large, remote, complex project like the NEC Baghdad required the timely assignment and use of seasoned, knowledgeable, and empowered staff members who followed the work through planning, design, construction, acceptance, occupancy, and operations and maintenance. We found that this was not the case and that the emphasis by EPCO and First Kuwaiti was on getting the job done quickly. We found numerous and systematic defects, including the lack of proper commissioning covering fire protection, elevators, and security systems. We concluded that First Kuwaiti failed to properly and completely conduct testing, balancing, and commissioning. Because of the lack of quality control action by the contractor, OBO engineering elements during 2008 were requested to check out and test some critical systems. OBO's efforts took the form of inspecting, testing, and documenting the need for repairs for portions of the systems needed to provide minimal levels of service for moving embassy personnel into a more secure environment.

We concluded that EPCO did not ensure that the contractor met the terms and conditions of the contract as they related to general workmanship of the NEC Baghdad. For example, USACE engineers identified a “dip” in the hallway floor slab immediately in front of the Ambassador’s Offices that measured ½ inch deep in just a 2-foot span, the pervasive cracking of all concrete roadway surfaces, and deficiencies in interior and exterior finishes. EPCO and First Kuwaiti jointly created a consolidated punch list to identify construction deficiencies. As of April 2008, about 4 months after the NEC facilities were substantially completed, the consolidated punch list contained 966 items, of which 573 items (59 percent) remain unresolved. According to USACE, this was indicative of a poor quality assurance and quality control program. Although First Kuwaiti quality control personnel conducted 5,374 inspections, 3,942 inspections, or 73 percent, involved only the concrete and outer structure of the buildings. While USACE acknowledged that reviewing concrete was an important feature of construction, other systems of the NEC Baghdad that should have received more attention under the quality control inspection process involved complex electrical systems, mechanical systems, and HVAC systems. USACE estimated that a robust quality control program for the NEC contracts should have included about 200,000 quality control inspections.

In October 2008, Embassy Baghdad officials acknowledged that the current construction defects were attributable to poor construction by First Kuwaiti; however, embassy officials preferred to have the current operation and maintenance contractor correct the deficiencies instead of having a protracted argument with First Kuwaiti over who was responsible for the defects. Embassy Baghdad’s facilities manager stated that the operation and maintenance contractor was spending 30 percent of his time and manpower in addressing or correcting defects in construction left by First Kuwaiti, including responding to equipment failures and correcting systems that did not operate effectively. This additional work detracted from completing other operations and maintenance tasks, such as preventive maintenance and system optimization. We concluded that First Kuwaiti should be accountable for the additional maintenance charges that could carry over into future years. We estimated that the Embassy would spend approximately \$2.1 million annually in excess maintenance costs to correct deficiencies that should have been the responsibility of First Kuwaiti. Over the 15-year life of many of these systems, this would amount to a \$38 million loss to the Department.

Contractor Late in Establishing Commissioning Activities

We concluded that the commissioning process for the NEC Baghdad was inadequate. First Kuwaiti did not hire a Commissioning Authority until November 2007, when construction was near completion. A commissioning program near the end of construction is an ineffective means of ensuring that those critical life and safety systems and other key operating systems such as water and power will operate as intended. As a result, vital complex mechanical, HVAC, and electrical systems that were to be built for the NEC Baghdad were not properly inspected for individual or integrated operation.

Contract Requirements

The NEC Baghdad contracts required First Kuwaiti to designate one or more individuals to serve solely as the Commissioning Authority and to have no additional duties. The contracts required that a Commissioning Authority participate in all phases of a project from design document preparation to execution of construction activities and throughout project completion and closeout, acceptance, and the warranty period. The contracts also required a commissioning plan approved by the government that included a commissioning schedule generated from the project execution system,⁷ start-up activities, task durations, and relationships to other activities; and the mobilization schedule and planned work times for commissioning activities. The contracts further required the Commissioning Authority to provide a commissioning report that included documentation of all start-up and commissioning activities, performance checklists and data sheets, the results of all functional performance testing, and photographs and/or video documentation of all start-up and commissioning activities.

Contract Execution

Although First Kuwaiti's best and final offer stated that the company had hired a Commissioning Authority in July 2005, a Commissioning Authority had not been hired until construction was nearing completion, in November 2007. We found that First Kuwaiti's originally proposed commissioning agent was not employed but that during 2007, an individual performing "testing and balancing" work as a subcontractor for EPCO was hired as the commissioning agent. The NEC contracts were not

⁷ First Kuwaiti did not maintain an automated project execution schedule. The schedule should have been used for planning the necessary resources for each activity, which could then be rolled up into the total project cost.

amended, even though First Kuwaiti should have provided this function. This meant that no Commissioning Authority had reviewed the installation of facility components and building systems or had validated changes and the integration of systems during the project design or construction phases. However, some of the functional performance tests conducted, including tests of apartment air handling units, hot water heaters, and the BAS, were not performed correctly. Overall, we found discrepancies in 11 of the 14 areas inspected. Therefore, critical systems, such as water treatment, were not completely or correctly tested.

The lack of a proper commissioning process has already adversely affected Embassy Baghdad operations. For example, the NEC Baghdad facilities manager restricted NEC power plant operations to 60 percent of each generator's design capacity because he lacked information on the performance of each generator. However, in October 2008, a USACE team performed a functional test at the power plant and determined that the generators could be run at 100 percent of power, thereby increasing the available power output for the growing number of NEC tenants.

We found that the commissioning process was not accomplished in its entirety and that it needed to be accomplished in areas where it had been implemented. We estimated that \$3.8 million would be needed to fulfill the original commissioning process.

Recommendations

Recommendation 1. We recommend that the Contracting Officer, Bureau of Administration, Office of Logistics Management, attempt to recover \$4.6 million from First Kuwaiti Trading and Contracting for the infrastructure contract to make the necessary corrections to the safe areas in the New Embassy Compound.

Recommendation 2. We recommend that the Contracting Officer, Bureau of Administration, Office of Logistics Management, attempt to recover \$14 million for the housing, infrastructure, support facilities, and the chancery contracts from First Kuwaiti Trading and Contracting to perform the necessary design and retrofit of seismic bracing in the New Embassy Compound.

Recommendation 3. We recommend that the Contracting Officer, Bureau of Administration, Office of Logistics Management, attempt to recover approximately \$200,000 for the infrastructure contract from First Kuwaiti Trading and Contracting in order to coat the water treatment plant storage tank. In addition, the connection to Baghdad city water needs to be disabled and the required design documentation provided.

Recommendation 4. We recommend that the Contracting Officer, Bureau of Administration, Office of Logistics Management, attempt to recover \$1.7 million from First Kuwaiti Trading and Contracting for the housing, infrastructure, support facilities, and the chancery contracts so that the necessary repairs to the exterior walls and walkway and road surfaces can be made.

Recommendation 5. We recommend that the Contracting Officer, Bureau of Administration, Office of Logistics Management, attempt to recover \$200,000 from First Kuwaiti Trading and Contracting for the support facilities contract and install six functioning lifts at Embassy Baghdad.

Recommendation 6. We recommend that the Contracting Officer, Bureau of Administration, Office of Logistics Management, attempt to recover approximately \$500,000 from First Kuwaiti Trading and Contracting for the infrastructure contract to increase the penthouse size and air flow through the louvers of the Utility Building.

Recommendation 7. We recommend that the Contracting Officer, Bureau of Administration, Office of Logistics Management, attempt to recover \$11 million from First Kuwaiti Trading and Contracting for the infrastructure contract to compensate the Department of State for additional operating costs that will be incurred because the configuration of the Utility Building/Generator Plant was changed from the 10 2-megawatt configuration to 18 1-megawatt generators.

Recommendation 8. We recommend that the Contracting Officer, Bureau of Administration, Office of Logistics Management, attempt to recover between \$4.2 million and \$4.4 million from First Kuwaiti Trading and Contracting for the infrastructure contract to correct all deficiencies to the electrical wiring, control, and distribution systems at the New Embassy Compound.

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Recommendation 9. We recommend that the Contracting Officer, Bureau of Administration, Office of Logistics Management, attempt to recover an estimated \$500,000 from First Kuwaiti Trading and Contracting for the infrastructure contract so that the necessary functions can be added to the building automation system at the New Embassy Compound.

Recommendation 10. We recommend that the Contracting Officer, Bureau of Administration, Office of Logistics Management, attempt to recover \$4.6 million from First Kuwaiti Trading and Contracting to correct fire system deficiencies for the staff diplomatic apartments (\$3.5 million for the housing contract) and repair the water main distribution system joints (\$1.1 million for the infrastructure contract).

Recommendation 11. We recommend that the Contracting Officer, Bureau of Administration, Office of Logistics Management, attempt to recover approximately \$1.5 million from First Kuwaiti Trading and Contracting for the infrastructure and housing contracts to correct deficiencies in the plumbing traps at the New Embassy Compound.

Recommendation 12. We recommend that the Contracting Officer, Bureau of Administration, Office of Logistics Management, attempt to recover approximately \$33 million that was paid to First Kuwaiti Trading and Contracting to perform and document the required design work for the NEC Baghdad contracts.

Recommendation 13. We recommend that the Contracting Officer, Bureau of Administration, Office of Logistics Management, attempt to recover approximately \$38 million for the housing, infrastructure, support facilities, chancery, and pre-engineered buildings to compensate the U.S. Government for the higher future maintenance costs and negotiate a settlement with First Kuwaiti Trading and Contracting to fund the additional long-term maintenance costs.

Recommendation 14. We recommend that the Contracting Officer, Bureau of Administration, Office of Logistics Management, attempt to recover approximately \$3.8 million for the housing, infrastructure, site facilities, and chancery contracts that First Kuwaiti Trading and Contracting did not perform or that it performed incorrectly related to commissioning activities.

FINDING B. ESTABLISHMENT OF EPCO AS A SEPARATE ORGANIZATION RESULTED IN WEAK CONTRACT ADMINISTRATION

As a separate stand-alone organization removed from OBO, EPCO did not adequately carry out its contract administration responsibilities during the construction of the NEC Baghdad. According to USACE, “[T]he underlying error was the establishment of EPCO . . . without first ensuring that they had the necessary personnel, operating procedures, and knowledge to execute the largest construction project ever undertaken by DoS [Department of State].” EPCO was led by a PSC⁸ acting as the Managing Director who did not enforce contract requirements, to include complying with design and construction requirements (see Finding A). Also, weak contract administration led to liquidated damages being assessed when contractual completion dates were not met, the unauthorized prepayment of mobilization fees being made, and FAR provisions not being followed. As a result, although the construction of the NEC Baghdad had significant construction deficiencies and embassy personnel could not move into the NEC as originally scheduled, EPCO did not require First Kuwaiti to pay approximately \$10.9 million in liquidated damages for the delay. In addition, EPCO approved \$69.1 million in advance mobilization payments that were not authorized by the contracts but did not require First Kuwaiti to pay approximately \$3.3 million in interest charges for the use of those funds. Also, EPCO approved contractor invoices without adequate documentation, as required by the FAR, and did not require First Kuwaiti to comply with reporting requirements of the Cargo Preference Act.

EPCO Organizational and Personnel Issues

USACE found that the EPCO organizational structure was created with technical and contract administration positions that were “staffed by inexperienced and untrained people.” Most EPCO staff were PSCs, not government employees, who, according to USACE, “placed their personal loyalties to the EPCO and/or OBO Directors ahead of any fiduciary or contractual obligations.” Further, according to USACE, EPCO employees controlled information and communication and, “against the balance of the OBO and A/LM/AQM [contracting] staff,” diverted “attention from the actual problems on the ground.” In early 2008, only after the NEC Baghdad projects were up to a year behind schedule and OBO elements outside of EPCO

⁸ OBO’s authority to hire PSCs stems from the Foreign Buildings Act of 1926, as amended (22 U.S.C. 296). OBO’s Policy and Procedures Directive for PSCs (revised Dec. 12, 2003) states that a PSC employee may be authorized by the supervisors of U.S. direct hire employees to direct and oversee performance of official work by U.S. direct hire employees and conduct money transactions and settlements on behalf of OBO.

began to realize the magnitude of the schedule and quality problems, did OBO's Washington-based technical teams take action. Funding to EPCO ceased at the end of fiscal year 2007, a new OBO Director was appointed in January 2008, and OBO returned to its more traditional roles of technical and administrative involvement in the construction. According to USACE:

[U]nfortunately, much of the work had already been accomplished without verifiable design, quality control, testing or commissioning, so the OBO representatives identified and focused only on critical life safety systems, such as fire protection—they sent teams to Baghdad to physically inspect and test the installed systems. Due to time and personnel constraints, DoS [Department of State] was forced to begin occupying the facilities before all corrective work was identified and accomplished, resulting in the premature acceptance of the work, and producing problems with operation and maintenance that continue to this day.

USACE concluded that the EPCO Managing Director and, to a large extent, the COR who reported to the EPCO Managing Director did not have any background in, or basis for, making decisions involving complex electrical, mechanical, and structural systems. Although USACE felt that the ACOR, who also reported to the EPCO Managing Director, had a technical background, his role had been diminished, and he ultimately left EPCO after the first year of construction.

Liquidated Damages Not Assessed

First Kuwaiti did not complete three of its fixed-priced contracts by the contract completion dates, and liquidated damages were not assessed from the completion date in the contracts to the date of substantial completion. Specifications contained in the housing, infrastructure, and support facilities contracts state the following:

[L]iquidated damages will be assessed at \$50,000 per day and will be assessed from the completion date indicated in the contract to the date that substantial completion is actually achieved by the Contractor, as determined by the [CO]. In the event that the contract consists of multiple phases, projects, or buildings, the liquidated damages rate will be prorated on the ratio of the estimated price of each phase, project or building to the Contract Price unless otherwise provided in the Contract Documents.

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The NEC contracts define the date of substantial completion as follows:

. . . the date determined by the [CO] or [COR] of which substantial completion of the work has been achieved. This date shall be contingent on the Contractor completing certain general construction work . . . at a minimum of thirty days prior to substantial completion. The Contractor's failure to meet this thirty-day window in the project construction schedule prior to the scheduled date for Substantial Completion will cause the Government to assess damages for the uncompleted work as Liquidated Damages. . . .

NEC contracts were accepted as “substantially complete” by the Department on December 16, 2007. However, the housing contract was required to be completed by August 15, 2007, and therefore was 123 days late, and the infrastructure and support facilities contracts were required to be completed by October 30, 2007, and therefore were 47 days late. As a result, the Department had to delay moving personnel from housing in trailers, where they were at greater risk from mortar attacks and rocket fire, to the NEC Baghdad because the facilities were not ready for occupancy. However, the CO who was responsible for assessing liquidated damages for the late completion of the facilities did not hold First Kuwaiti accountable for its contract obligations or pursue liquidated damages from it. We determined that liquidated damages of approximately \$10.9 million are owed the Department for these delays, as detailed in Table 2.

Table 2. Total Liquidated Damages

Contract #	Purpose	Contractor	Liquidated Damages
SALMEC-05-C0019	Infrastructure	First Kuwaiti	\$ 2,350,000
SALMEC-05-C0020	Housing	First Kuwaiti	\$ 6,150,000
SALMEC-05-C0021	Support Facilities	First Kuwaiti	\$ 2,350,000
Total			\$10,850,000

(Source: OIG generated)

Mobilization Payments Made Without Authority

In December 2005, advance payments for mobilization of approximately \$69.1 million were made to First Kuwaiti for the five NEC contracts (shown in Table 1, contracts 1–5). However, none of the contracts contained language that authorized advance mobilization payments. First Kuwaiti repaid the principal amount between February 2006 and September 2008 without paying interest. In allowing the mobilization payments, the Department did not comply with the provisions of FAR

32.402c, which required that the “agency head or designee determines, based on written findings [emphasis added], that the advance [mobilization] payment (A) is in the public interest . . . or (B) facilitates the national defense” FAR 32.407a states that “the contracting officer shall charge interest on the daily unliquidated balance of all advance payments.”

We found that the CO did not formally authorize these payments or request that First Kuwaiti provide an advance payment application in compliance with FAR requirements. The Managing Director forwarded a mobilization request by First Kuwaiti to the CO. The CO responded to the Managing Director that the only payments authorized were for the actual mobilization performed on the dates of the invoices. However, the CO and the ACOR approved the mobilization payments without question, even though the costs were not authorized in the contract. We were unable to determine why they had approved the payments. We calculated interest charges of approximately \$3.3 million on the daily unliquidated balance of all advance payments made from December 2005 through September 2008.

EPCO Did Not Enforce FAR Provisions

EPCO did not require First Kuwaiti to adhere to FAR provisions requiring adequate documentation to support invoice payments and compliance with the Cargo Preference Act.

Invoice Approval

Our review of 94 First Kuwaiti invoices showed that the CO and the ACOR had approved payments made between August 2005 and September 2008 without adequate documentation. Those invoices reviewed totaled more than \$467 million under the five NEC Baghdad contracts. Specifically, the invoices did not contain the detailed supporting documentation required by FAR 52-232-5, which requires an itemization of the amounts requested, a listing of the amounts included for work performed by each subcontractor under the contract, and a certification containing the following attestations:

- (1) The amounts requested are only for performance in accordance with the specifications, terms, and conditions of the contract;
- (2) All payments due to subcontractors and suppliers from previous payments received under the contract have been made, and timely payments will be made from the proceeds of the payment covered by this certification, in accordance with subcontract agreements and the requirements of Chapter 39 of Title 31, United States Code;
- (3) This request for progress payments does not include any amounts which

the prime contractor intends to withhold or retain from a subcontractor or supplier in accordance with the terms and conditions of the subcontract; and (4) This certification is not to be construed as final acceptance of a subcontractor's performance.

Cargo Preference Act

First Kuwaiti did not comply with mandatory reporting required by the Cargo Preference Act of 1954.⁹ The Cargo Preference Act establishes the requirements for contractors to ship goods and services on U.S. flag vessels. The Act requires transporting, in privately owned U.S.-flag commercial vessels, at least 50 percent of all government cargo tonnage transported on ocean vessels to the extent that such vessels are available at fair and reasonable prices. The Act's requirements were incorporated into the housing and other First Kuwaiti contracts. In addition, FAR 52.247-64 requires contractors to submit one legible copy of a rated on-board ocean bill of lading for each shipment to both the CO and the Department of Transportation's Maritime Administration (MARAD) within 20 working days of the date of loading for shipments originating in the United States or within 30 working days for shipments originating outside the United States.

First Kuwaiti ignored repeated attempts by MARAD and an A/LM contracting official since August 2006 to report whether First Kuwaiti and its subcontractors had shipped 50 percent of its cargo on U.S. flag vessels, as required by the Act. In addition, First Kuwaiti did not provide copies of rated bills of lading to MARAD that detailed its shipments originating inside and outside the United States. We contacted MARAD in April 2009 and validated that First Kuwaiti had not provided the required bills of lading as of that date. In an e-mail to MARAD, First Kuwaiti officials stated that the EPCO Project Team had informed them that they did not have to comply with the law.

Recommendations

Recommendation 15. We recommend that the Bureau of Overseas Buildings Operations develop guidelines for any future stand-alone project office that will provide personnel who have the requisite expertise, as well as an appropriate mix of government employees and personal services contractors.

⁹ 46 App. U.S.C. 1241(b).

Recommendation 16. We recommend that the Contracting Officer, Bureau of Administration, Office of Logistics Management, attempt to recover liquidated damages of approximately \$10.9 million from First Kuwaiti Trading and Contracting for the housing, infrastructure, and support facilities contracts.

Recommendation 17. We recommend that the Contracting Officer, Bureau of Administration, Office of Logistics Management, attempt to recover from First Kuwaiti Trading and Contracting approximately \$3.3 million for interest that should have been assessed for the advance payments of approximately \$69.1 million that were made to First Kuwaiti.

Recommendation 18. We recommend that the Bureau of Administration, Office of Logistics Management, emphasize that contracting officers for major construction projects are to periodically review the documentation that supports contract invoices to ensure that the documentation for these invoices is in compliance with the Federal Acquisition Regulation (FAR 52-232-5).

Recommendation 19. We recommend that the Contracting Officer, Bureau of Administration, Office of Logistics Management, require First Kuwaiti Trading and Contracting to provide information on the New Embassy Compound contracts requested by the Department of Transportation's Maritime Administration regarding compliance with the Cargo Preference Act of 1954 or take appropriate corrective actions.

FINDING C. CONTRACT COMPETITION WAS NOT IN FULL COMPLIANCE WITH FAR 15.204-5(c)

We found that the Department generally followed applicable procurement regulations in the award of contracts for housing, infrastructure, and support facilities; however, we did find that the solicitations did not stipulate the relative weight of factors to be considered in the awarding of the NEC contracts, as required by FAR 15.204-5(c). As a result, bidders were not aware of the importance assigned to a contract schedule in relationship to cost during the contract award process.

Award of the Housing, Infrastructure, and Support Facilities Contracts

A/LM/AQM published a presolicitation notice to bidders for procurement of the three design-build contracts, for housing, infrastructure, and support facilities, on January 7, 2005. On March 22, 2005, eight contractors were prequalified and determined to be eligible to submit bids on the contracts for housing, infrastructure, and support facilities. The prequalification procedures satisfied the requirements of determining prospective bidders. The RFPs were issued on May 24, 2005, and required bidders to respond by June 20, 2005. The solicitations included concept/bridging drawings and specifications that had been prepared by Louis Berger, an architect-engineer firm from New Jersey. The bidders were instructed that these were not complete designs and that their work would include completing the design work, as well as constructing the facilities.

In June 2005, a TEP, staffed with EPCO employees, reviewed the initial proposals for the three solicitations and found that only First Kuwaiti satisfied all of the technical requirements; the other two offerors failed to meet the project schedule, which was the most important rating factor. Two offerors, First Kuwaiti and another offeror, submitted bids for all three of the contracts, and a third offeror submitted a bid for only the housing contract.¹⁰ After conducting TEPs for each of the three contracts, First Kuwaiti was recommended for award of all three contracts. The other offerors were considered by the TEPs to have “failed” because they had not met the schedule requirements set forth in the solicitation.

The TEPs all recommended against discussions with the offerors whose bids were deemed to be unacceptable on a technical basis. Notwithstanding the TEP’s request that no discussions were to be held with the unsuccessful offerors, A/LM/AQM issued amendment A004 to the solicitation and held discussions with the unsuccessful bidders and requested best and final offers. On July 1, 2005, one day after the best and final offers were received from all three contractors, EPCO issued a memorandum to the OBO Director recommending award of the contracts for housing, infrastructure, and support facilities, stating that First Kuwaiti had completed designs for the projects. A/LM/AQM issued the awards on July 8, 2005, based on EPCO’s recommendation that First Kuwaiti was the only contractor to meet the project schedule requirements.

¹⁰ The infrastructure TEP was conducted on June 22, 2005, with the report being issued on June 23, 2005; the housing TEP met on June 24, 2005, with the report being issued the same date; and the support facilities TEP was held on June 23, 2005, with the report being issued on June 24, 2005.

Compliance With FAR 15.204-5(c)

We found that the solicitations did not explain to the bidders the importance of meeting the schedule in relation to the cost involved. Specifically, the solicitations did not stipulate the relative weight of factors to be considered in the awarding of the contract relative to cost and pricing. Section M.2.2.3 of the RFP, with respect to the importance of completion during the contract period of performance, stated the following:

The Government will review the Project Schedule to analyze the sequence of work, ensure that the proposed schedule meets realistic expectations, clearly identifies key design-build milestones required for this RFP and to ensure that work would be completed on time in accordance with the contract period of performance. The end result of this review will be a determination of technical acceptability or unacceptability.

FAR 15.204-5(c) requires that Section M of any covered solicitation “[i]dentify all significant factors and any significant subfactors that will be considered in awarding the contract and their relative importance (see 15.304(d)).” The FAR further states, “The contracting officer **shall** [emphasis added] insert one of the phrases in 15.304(e).”

FAR 15.304(e) provides the exact phrasing that should be used:

- (e) The solicitation shall also state, at a minimum, whether all evaluation factors other than cost or price, when combined, are—
 - (1) Significantly more important than cost or price;
 - (2) Approximately equal to cost or price; or
 - (3) Significantly less important than cost or price (10 U.S.C. 2305(a)(3)(A) (iii) and 41 U.S.C. 253a(c)(1)(C)).

We could not determine whether the omission of the FAR clauses had an effect on the bids that were determined to be unacceptable. However, the omission of these clauses could have contributed to two of the three bidders submitting bids at a lesser cost than the third bidder because those bidders did not adhere to the schedule in the RFP.

Recommendation

Recommendation 20. We recommend that the Bureau of Administration, Office of Logistics Management, take measures to ensure that future contract solicitations comply with the Federal Acquisition Regulation (FAR 15.204-5(c)).

MANAGEMENT RESPONSE AND OIG REPLY

Management Response

In its response (Appendix B), the A Bureau stated, “The Contracting Officer will prepare a letter to the Contractor, detailing each of [the OIG] recommendations and request consideration from the Contractor in each amount recommended by the OIG.” The A Bureau requested that OIG provide the Contracting Officer information detailing the basis for computing the \$132 million in costs recommended for recovery from First Kuwaiti. The A Bureau also stated, “The formal process to recover any funds from the contractor will be assessed in terms of overall benefit to the government.”

Further, the A Bureau stated that procedures will be developed requiring Contracting Officers of major construction projects to “periodically review” contractor invoices for compliance with documentation requirements found in FAR 52.232-5. In addition, the A Bureau agreed to structure current review procedures to ensure that future contract competitions comply with FAR 15.204-5(c) concerning the requirement to identify the relative weight of factors for cost, price, and schedule.

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In its response (Appendix C), OBO stated that “stand alone project offices [such as EPCO] are a mistake” and that this type of structure will not be used in the future. OBO did acknowledge that if the need arises for a stand-alone project office, it will use a current successful model, called the Special Projects Coordination office. This dedicated office would be managed by OBO “mainstream managing directors” and other Department personnel.

OIG Reply

OIG believes that the response from the A Bureau meets the intent of our recommendations to recover \$132 million from the contractor attributable to construction deficiencies; incomplete and undocumented work; additional maintenance charges incurred because of inadequate quality control and commissioning procedures; and contract noncompliance, including not assessing liquidated damages and not requiring interest for an unauthorized advance. OIG, in cooperation with USACE, will be available to provide the Contracting Officer and OBO a detailed breakdown of how each dollar value in these recommendations was computed. In addition, OIG and USACE will be available to explain the documentation and methodology to OBO's cost estimating staff. OIG notes that USACE, in developing these cost estimates, conferred with OBO staff and explained that these estimates were fully burdened using the RS Means Cost Data estimating system. Further, these cost estimates included any impact costs that USACE could identify at the time of the audit. We believe, to correct the deficiencies noted in the report, that design work will first be needed in order to validate the scope of repairs and assess the impact of additional operations and maintenance requirements. Only after design work is completed can a procurement vehicle and a time frame be selected. OIG notes that some of the cost estimates were based on deficiencies where only a portion of the work performed by First Kuwaiti requires repair or replacement. In addition, Embassy Baghdad-specific costs will be highly variable based on factors including who will do the work, such as cleared American contractors and workers, third-country nationals, and foreign contractors. The security conditions in Baghdad at the time of contract performance will also impact cost estimates.

OIG believes that the A Bureau's proposed actions concerning contract administration are overall responsive to our recommendations. OIG commends the A Bureau's planned actions to develop procedures for Contracting Officers of major construction projects to periodically review contractor invoices for compliance with documentation requirements contained in FAR 52.232-5. Also, additional review procedures to comply with FAR 15.204-5(c) can be beneficial in ensuring transparency for future contract competitions. The A Bureau did not identify specific planned actions concerning our recommendation for the Contracting Officer to require First Kuwaiti to provide information on the NEC Baghdad project to the Department of Transportation's Maritime Administration regarding compliance with the Cargo Preference Act of 1954.

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OIG believes that the Contracting Officer's request for recovery of funds from First Kuwaiti should be based on any mechanisms that might be legally available given the facts, including, but not limited to, the latent defects or gross mistakes provisions of the Inspection of Construction Clause of FAR 52.246-12. In addition, OIG recognizes the A Bureau's concern that recovery of funds can be costly and time-consuming. OIG suggests that the Contracting Officer consider an alternative dispute resolution process as an option.

OBO's response to our draft report recommendation concerning improvements to future stand-alone projects offices is responsive. In light of OBO's stating that a project office structure like EPCO will not be used in the future, we consider our recommendation closed upon issuance of this final report. OIG has revised the final report based on OBO's comments that Embassy Baghdad, not First Kuwaiti, is responsible for the deficiency OIG identified concerning the warehouse sprinkler system's not meeting fire codes and stated that the contractor therefore "should not be penalized." OIG has revised the final report recommendation and acknowledges that the fire hazard remains and should be corrected as soon as possible.

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LIST OF RECOMMENDATIONS

Recommendation 1. We recommend that the Contracting Officer, Bureau of Administration, Office of Logistics Management, attempt to recover \$4.6 million from First Kuwaiti Trading and Contracting for the infrastructure contract to make the necessary corrections to the safe areas in the New Embassy Compound.

Recommendation 2. We recommend that the Contracting Officer, Bureau of Administration, Office of Logistics Management, attempt to recover \$14 million for the housing, infrastructure, support facilities, and the chancery contracts from First Kuwaiti Trading and Contracting to perform the necessary design and retrofit of seismic bracing in the New Embassy Compound.

Recommendation 3. We recommend that the Contracting Officer, Bureau of Administration, Office of Logistics Management, attempt to recover approximately \$200,000 for the infrastructure contract from First Kuwaiti Trading and Contracting in order to coat the water treatment plant storage tank. In addition, the connection to Baghdad city water needs to be disabled and the required design documentation provided.

Recommendation 4. We recommend that the Contracting Officer, Bureau of Administration, Office of Logistics Management, attempt to recover \$1.7 million for contracts from First Kuwaiti Trading and Contracting for the housing, infrastructure, support facilities, and the chancery contracts so that the necessary repairs to the exterior walls and walkway and road surfaces can be made.

Recommendation 5. We recommend that the Contracting Officer, Bureau of Administration, Office of Logistics Management, attempt to recover \$200,000 from First Kuwaiti Trading and Contracting for the support facilities contract and install six functioning lifts at Embassy Baghdad.

Recommendation 6. We recommend that the Contracting Officer, Bureau of Administration, Office of Logistics Management, attempt to recover approximately \$500,000 from First Kuwaiti Trading and Contracting for the infrastructure contract to increase the penthouse size and air flow through the louvers of the Utility Building.

Recommendation 7. We recommend that the Contracting Officer, Bureau of Administration, Office of Logistics Management, attempt to recover \$11 million from First Kuwaiti Trading and Contracting for the infrastructure contract to compensate the Department of State for additional operating costs that will be incurred because the configuration of the Utility Building/Generator Plant was changed from the 10 2-megawatt configuration to 18 1-megawatt generators.

Recommendation 8. We recommend that the Contracting Officer, Bureau of Administration, Office of Logistics Management, attempt to recover between \$4.2 million and \$4.4 million from First Kuwaiti Trading and Contracting for the infrastructure contract to correct all deficiencies to the electrical wiring, control, and distribution systems at the New Embassy Compound.

Recommendation 9. We recommend that the Contracting Officer, Bureau of Administration, Office of Logistics Management, attempt to recover an estimated \$500,000 from First Kuwaiti Trading and Contracting for the infrastructure contract so that the necessary functions can be added to the building automation system at the New Embassy Compound.

Recommendation 10. We recommend that the Contracting Officer, Bureau of Administration, Office of Logistics Management, attempt to recover \$4.6 million from First Kuwaiti Trading and Contracting to correct fire system deficiencies for the staff diplomatic apartments (\$3.5 million for the housing contract) and repair the water main distribution system joints (\$1.1 million for the infrastructure contract).

Recommendation 11. We recommend that the Contracting Officer, Bureau of Administration, Office of Logistics Management, attempt to recover approximately \$1.5 million from First Kuwaiti Trading and Contracting for the infrastructure and housing contracts to correct deficiencies in the plumbing traps at the New Embassy Compound.

Recommendation 12. We recommend that the Contracting Officer, Bureau of Administration, Office of Logistics Management, attempt to recover approximately \$33 million that was paid to First Kuwaiti Trading and Contracting to perform and document the required design work for the NEC Baghdad contracts.

Recommendation 13. We recommend that the Contracting Officer, Bureau of Administration, Office of Logistics Management, attempt to recover approximately \$38 million for the housing, infrastructure, support facilities, chancery, and pre-engineered buildings to compensate the U.S. Government for the higher future maintenance costs and negotiate a settlement with First Kuwaiti Trading and Contracting to fund the additional long-term maintenance costs.

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Recommendation 14. We recommend that the Contracting Officer, Bureau of Administration, Office of Logistics Management, attempt to recover approximately \$3.8 million for the housing, infrastructure, site facilities, and chancery contracts that First Kuwaiti Trading and Contracting did not perform or that it performed incorrectly related to commissioning activities.

Recommendation 15. We recommend that the Bureau of Overseas Buildings Operations develop guidelines for any future stand-alone project office that will provide personnel who have the requisite expertise, as well as an appropriate mix of government employees and personal services contractors.

Recommendation 16. We recommend that the Contracting Officer, Bureau of Administration, Office of Logistics Management, attempt to recover liquidated damages of approximately \$10.9 million from First Kuwaiti Trading and Contracting for the housing, infrastructure, and support facilities contracts.

Recommendation 17. We recommend that the Contracting Officer, Bureau of Administration, Office of Logistics Management, attempt to recover from First Kuwaiti Trading and Contracting approximately \$3.3 million for interest that should have been assessed for the advance payments of approximately \$69.1 million that were made to First Kuwaiti.

Recommendation 18. We recommend that the Bureau of Administration, Office of Logistics Management, emphasize that contracting officers for major construction projects are to periodically review the documentation that supports contract invoices to ensure that the documentation for these invoices is in compliance with the Federal Acquisition Regulation (FAR 52.232-5).

Recommendation 19. We recommend that the Contracting Officer, Bureau of Administration, Office of Logistics Management, require First Kuwaiti Trading and Contracting to provide information on the New Embassy Compound contracts requested by the Department of Transportation's Maritime Administration regarding compliance with the Cargo Preference Act of 1954 or take appropriate corrective actions.

Recommendation 20. We recommend that the Bureau of Administration, Office of Logistics Management, take measures to ensure that future contract solicitations comply with the Federal Acquisition Regulation (FAR 15.204-5(c)).

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ABBREVIATIONS

ACOR	Alternate Contracting Officer's Representative
A/LM/AQM	Bureau of Administration, Office of Logistics Management, Office of Acquisitions Management
BAS	building automation system
CO	Contracting Officer
COR	Contracting Officer's Representative
EPCO	Emergency Project Coordination Office
FAR	Federal Acquisition Regulation
First Kuwaiti	First Kuwaiti Trading and Contracting
GSO	General Services Office
HVAC	heating, ventilation, and air conditioning
NEC	New Embassy Compound
OBO	Bureau of Overseas Buildings Operations
PSC	personal services contractor
RFP	request for proposal
SDA	staff diplomatic apartments
TEP	Technical Evaluation Panel
USACE	U.S. Army Corps of Engineers

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APPENDIX A

SCOPE, METHODOLOGY, AND PRIOR AUDIT

Scope and Methodology

We reviewed the first five of six contracts awarded to First Kuwaiti Trading and Contracting for about \$470 million, as listed in Table 1 of the report, for the New Embassy Compound (NEC) in Baghdad, Iraq. Specifically, for Findings A and B, which relate to construction and contract administration, respectively, we reviewed all five contracts: site clearing and pre-engineered buildings, housing, infrastructure, support facilities, and the chancery. For Finding C, relating to contract competition, we reviewed the contracts for housing, infrastructure, and support facilities.

To conduct our work, we reviewed official contract files and applicable provisions of the Federal Acquisition Regulation (FAR), the Department of State Acquisition Regulations, the Foreign Affairs Manual, and the Foreign Affairs Handbook. We also reviewed files, drawings, and correspondence stored by the Department of State in a warehouse that were created in response to subpoenas from the U.S. Congress House Committee on Oversight and Government Reform and reviewed the records remaining in two repositories at the NEC.

We performed fieldwork between July 2008 and August 2009, including work at the NEC from September 28 through October 15, 2008. We interviewed officials in the Bureau of Overseas Buildings Operations (OBO); current and former contracting officials from the Bureau of Administration (A Bureau), Office of Logistics Management, Office of Acquisitions Management; former members of the Emergency Project Coordination Office (EPCO), including the Contracting Officer's Representative (COR) and the Alternate Contracting Officer's Representative (but not the EPCO Managing Director); and officials from the Bureau of Near Eastern Affairs (NEA) and the Bureau of Diplomatic Security (DS). We also met with representatives from the Office of Inspector General's (OIG) Office of Investigations (INV) and Office of General Counsel.

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During August 2008, OIG entered into an interagency support agreement with representatives from the U.S. Army Corps of Engineers (USACE) to provide licensed professional engineering consultant services to assist OIG staff in evaluating whether selected NEC Baghdad facilities, components, and systems were constructed in accordance with approved contract and international building code specifications^a and to assist OIG in understanding the technical aspects of the construction.

In Baghdad, we met with representatives from the NEC operations and maintenance contractor, First Kuwaiti's local area manager, and the current COR for the First Kuwaiti contracts. We also used document repositories established at the NEC Baghdad. USACE conducted a physical examination of the completed facilities in Baghdad, focusing on major compound and building systems, punch-list items, and OIG Hotline complaints.

In October 2008, we discussed the tentative results of our work in Iraq with the Embassy's Deputy Chief of Mission and other Embassy officials. Upon our return to Washington, D.C., in October 2008, we discussed, with a senior OBO official, tentative findings and issues requiring immediate attention. We briefed management from OBO and the A Bureau on the tentative findings in June 2009.

OIG provided the draft report to the A Bureau, OBO, DS, NEA, and Embassy Baghdad. OIG considered the written comments provided by the A Bureau and OBO on the draft report when preparing the final report. In addition, the Office of the Legal Adviser provided comments as part of the responses from the A Bureau and OBO. The responses from the A Bureau and OBO are presented in their entirety as Appendices B and C, respectively. DS, NEA, and Embassy Baghdad did not provide comments.

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

^aThe USACE team staff consisted of a professional engineer team lead; a professional civil engineer who was also a certified construction manager; an electrical engineer who was also a certified International Code Council Commercial Inspector and Plan Reviewer; a professional fire protection engineer; and a senior mechanical engineer technician who had extensive experience in heating, ventilation, and air conditioning and plumbing.

Review of Internal Controls

We contacted former EPCO and current OBO construction administration personnel and contracting officials from the A Bureau's Office of Logistics Management to gain an understanding of contract management policies and procedures for the NEC Baghdad construction contracts. We reviewed and tested contract administration controls and procedures at Department of State headquarters units and in Baghdad, Iraq. In addition, we reviewed and tested contractor compliance with required documentation, reports, and other submissions in accordance with contract terms and conditions. As stated in the report, the establishment of EPCO as a separate organization resulted in weak contract administration. EPCO did not follow established Department internal controls for contract administration, such as requiring adequate documentation for approval of invoices, and did not enforce contract requirements that resulted in construction deficiencies that will require over \$100 million to correct. Our review of internal controls was hindered by the lack of official records covering the design of facilities, project narratives, calculations, drawings, reports, correspondence, and contract modifications and change orders.

Prior Audit

In the December 2008 audit report *Procurement Competition for the New Embassy Compound at Baghdad, Iraq*,^b OIG judgmentally selected eight Department contracts that included the majority of the NEC Baghdad construction contracts listed in Table 1 of the report. However, in April 2008, new information came to OIG's attention regarding the competitively awarded contracts for housing, infrastructure, and support facilities that required additional audit procedures. The December report stated that solicitation and award of these three competitively bid contracts would be reported on in this current audit. Finding C of this report discusses the results of our work relative to contract competition for housing, infrastructure, and support facilities.

^bReport AUD/IQO-09-04, dated December 2008.

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For the December report on the five remaining contracts, OIG determined that the Department had generally followed applicable contracting laws, regulations, policies, and procedures in soliciting and awarding four contracts (two sole-source contracts and two contracts that were competed). However, contract files supporting actions for three of these four contracts were not complete. In addition, for the fifth contract, the sole-source contract for the guard camp, OIG found that the Department did not meet the “unusual and compelling urgency” standard of the FAR because it did not adequately plan for the procurement. OIG recommended strengthening procurement competition procedures when contracts are sole sourced using the unusual and compelling urgency authority of the FAR.

APPENDIX B



United States Department of State

Washington, D.C. 20520

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SEP 25 2009

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MEMORANDUM

TO: OIG – Harold W. Geisel, Acting

FROM: A – Steven J. Rodriguez, Deputy Assistant Secretary for Operations

SUBJECT: Draft Report on Audit of Construction of the New Embassy
Compound in Baghdad, Iraq (AUD/IQO-09-25)

Below is the Bureau of Administration's response to the subject report concerning construction of the New Embassy Compound in Baghdad, Iraq. The Office of Logistics Management was tasked with reviewing and providing written comments to Recommendations 1 – 14, 16, 17 and 19. We have included OPE responses to recommendations 18 and 20.

Recommendations 1 -14, 16, 17 and 19: These recommendations ask that the Contracting Officer, Bureau of Administration, Office of Logistics Management, recover various sums of money from the contractor for poor workmanship, higher future maintenance costs, and incomplete work and design. The total estimated amount subject to recovery is \$132 million.

A/LM/AQM Response: The Contracting Officer will prepare a letter to the Contractor, detailing each of these recommendations and request consideration from the Contractor in each amount recommended by the OIG. To accomplish this, the OIG will need to furnish the Contracting Officer a detailed breakdown of how each dollar value in these recommendations was computed, with the one exception of Recommendation 16 which relates to liquidated damages. Whatever backup documentation is furnished will be reviewed by OBO's cost estimating staff. The formal process to recover any funds from the contractor will be assessed in terms of overall benefit to the government.

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Recommendation 18: The Office the Procurement Executive, in coordination with the Bureau of Administration, Office of Logistics Management, take actions to require that contracting officers for major construction projects periodically review the documentation that supports contract invoices to ensure that the documentation for these invoices is in compliance with the Federal Acquisition Regulation (FAR 52.232-5).

OPE's Response: FAR 52.232-5 places responsibility on the Contracting Officer to approve progress payments to the contractor on a fixed price construction contract. Contractor certifications are required on each request for progress payment. Contracting Officers have the authority to retain payments if progress is not satisfactory. Contracting Officers may utilize Contracting Officer Representatives (CORs) to assist in the review and approval of invoices, but Contracting Officers retain overall responsibility and must take whatever actions are prudent to manage the program.

A/LM/AQM has a Quality Assurance Plan for maintaining acquisition quality and will develop an AQM procedure requiring contracting officers of major construction projects to periodically review contractor invoices and supporting documentation to ensure the invoice documentation is in compliance with Federal Acquisition Regulation (FAR) 52.232-5.

Recommendation 20: The Office of the Procurement Executive, in coordination with the Bureau of Administration, Office of Logistics Management, take measures to ensure that future contract solicitations comply with FAR 15.204-5(c).

A's Response: A/LM/AQM is the lead on complying with this recommendation. L/BA and the offices identified in A/LM/AQM's Quality Assurance Plan will review solicitations for compliance with FAR requirements. These reviews will be structured to ensure full compliance.

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Approved: Steven J. Rodriguez- Deputy Assistant Secretary, with the authorities of the Assistant Secretary of Administration per Delegation No.323 as executed by Deputy Secretary John D. Negroponte on January 16, 2009 and which appeared in the Federal Register (FR Doc E9-1928) on January 29, 2009.

Drafted: A/LM/AQM/FDCD: x55164 9/24/09

Cleared: A/LM: - ok
A/LM/AQM: - ok
A/LM/AQM/FDCD - ok
A/EX: - ok
L/BA: - ok
A/OPE: - ok
A: - ok

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APPENDIX C



United States Department of State

Washington, D.C. 20520

SEP 25 2009

**UNCLASSIFIED
MEMORANDUM**

TO: OIG – Harold W. Geisel, Acting

FROM: OBO/RM – Jürg Hochuli *JH*

SUBJECT: Draft Report on Audit of Construction of the New Embassy Compound in Baghdad, Iraq (AUD/IQO-09-25)

REF: OIG memo dtd September 4, 2009

The reference requests comments on the subject report. OBO appreciates the opportunity to review and comment on this draft. The following comments represent the views of OBO's senior leadership team. We respectfully request that these views be fully considered and incorporated into the final product.

Comment number one:

As regards Recommendation 15 of the draft report, OBO notes that the lesson learned from the EPCO experience is that separate, stand alone project offices are a mistake. OBO's work is too complex, too integrated and relies on too many participants within OBO to be able to successfully segregate a project into an isolated business unit. It takes the project out of the normal reviews, lessons learned exercises, and accountability checks and balances that are critical to project and organizational success.

Should it ever be decided to manage another project using a "stand-alone" project office, we would utilize the model of our current Special Projects Coordination (SPC) office. As you know, the office was established to deal with very special and unique requirements. That office, while dedicated

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Comment number three:

OBO's Fire Protection Division notes that the paragraph beginning on page 12 of the subject report appears to be inaccurate. The text points to deficient sprinkler coverage in the warehouse. While this is true, the report states the contractor installed solid shelving in lieu of open racks, thus making the ceiling mounted sprinklers deficient in controlling a fire in of the racks. The sprinkler system should have been extended to provide coverage to the racks and a redesign of the system and recalculation of its capacity would have been necessary. However, the racks were not part of the design from which the contractor worked. The post installed the shelves. In this case, the contractor should not be penalized.

We hope your audit team finds our comments useful. Thank you again for the opportunity to comment on the draft.

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Coordinated by: OBO/RM/P/PB: , x55745
H:RM-P:ASIG: Memo on Baghdad audit draft.rcn.9-09

Contributors:

OBO/OPS/FIR:
OBO/CFSM:
OBO/PDCS:

Reviews:

OBO/RM/P/PB: ok
OBO/RM: ok
OBO/RM: ok
OBO: acting ok

Information:

L/BA: ok
L/BA: (b) (6) ok
A/LM: (b) (6) ok

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