



Office of Inspector General  
United States Department of State

AUD-GEER-24-02

Office of Audits

November 2023

**(U) Audit of the Planning, Design,  
Construction, and Commissioning of the  
Central Power Plant at U.S. Embassy  
Baghdad, Iraq**

Global Emergencies and Emerging Risks



# HIGHLIGHTS

Office of Inspector General  
United States Department of State

AUD-GEER-24-02

## **(U) What OIG Audited**

(U) In January 2009, the Department of State (Department) opened the Baghdad Embassy Compound at U.S. Embassy Baghdad, Iraq. The compound included a power plant to generate all the compound's electrical power. However, the plant had deficiencies, and the Department took actions to replace the plant with a new central power plant. In 2012, the Bureau of Administration, Office of Acquisitions Management (AQM), awarded a contract, and the Bureau of Overseas Buildings Operations (OBO) constructed the plant. The plant came online in 2018 and has since experienced significant performance issues.

(U) The Office of Inspector General (OIG) conducted this audit to determine whether the Department followed federal and Department requirements and guidelines in the planning, design, construction, and commissioning of the central power plant at Embassy Baghdad.

## **(U) What OIG Recommends**

(U) OIG made 13 recommendations to the Bureau of Administration and OBO to improve planning processes, contract administration, design review, record retention, and management of future OBO projects involving power plants. Based on management's response to a draft of this report (see Appendices D and E), OIG considers 11 recommendations resolved, pending further action, and 2 recommendations unresolved. A synopsis of management's comments on the recommendations offered and OIG's replies follow each recommendation in the Audit Results section of this report. OIG's replies to technical comments provided by OBO and Embassy Baghdad are presented in Appendix F.

**November 2023**

**OFFICE OF AUDITS**

Global Emergencies and Emerging Risks

**(U) Audit of the Planning, Design, Construction, and Commissioning of the Central Power Plant at U.S. Embassy Baghdad, Iraq**

## **(U) What OIG Found**

(U) The Department did not always follow federal and Department requirements and guidelines in the planning, design, and commissioning of the new central power plant at Embassy Baghdad and missed opportunities to correct identified deficiencies at each project phase, even during the construction phase when the deficiencies became apparent.

(U) With respect to the planning phase, AQM did not comply with federal regulations regarding fair and reasonable pricing when awarding the task order to develop a site utilization plan for Embassy Baghdad. With respect to the design phase, OBO and AQM did not comply with requirements for selecting the most highly qualified architect-engineer to design the power plant at a fair and reasonable price. Also, the design review process failed to identify inadequate air flow in the design. With respect to the construction phase, technical issues with the design were identified during construction but were not always addressed. With respect to the commissioning phase, commissioning for the plant began 14 months after the construction phase began, contrary to OBO's guidance stating that it begins before the design phase for the purposes of identifying problems early. In addition, OBO concluded the commissioning process without resolving outstanding concerns regarding inadequate ventilation and airflow and ignored results of power plant performance testing and recommendations to conduct further testing.

(U) Embassy and contractor personnel acknowledged that OBO and AQM did not always follow federal and Department requirements when executing the power plant project. This was primarily due to the desire to expedite completion of the project. Consequently, Department officials missed opportunities to address known deficiencies that have now become liabilities. Specifically, persistent performance problems with the central power plant have required the Department to incur significant costs. Until the deficiencies that allowed OBO and AQM to depart from federal and Department requirements are corrected, ongoing and future power plant projects undertaken by the Department could be in jeopardy and experience similar, costly results.

## (U) CONTENTS

---

(U) OBJECTIVE .....	1
(U) BACKGROUND .....	1
(U) Embassy Baghdad Power Plant Replacement Construction Project .....	1
(U) The New Central Power Plant .....	3
(U) Roles and Responsibilities for Department Contracting and Overseas Building.....	5
(U) AUDIT RESULTS .....	7
(U) Finding: The Department Did Not Always Follow Federal and Department Requirements and Guidelines in the Planning, Design, and Commissioning of Embassy Baghdad’s New Central Power Plant.....	7
(U) RECOMMENDATIONS.....	41
(U) APPENDIX A: PURPOSE, SCOPE, AND METHODOLOGY.....	43
(U) Data Reliability.....	46
(U) Work Related to Internal Control .....	46
(U) Prior Office of Inspector General Reports.....	48
(U) APPENDIX B: TIMELINE OF MAJOR PROJECT MILESTONES.....	50
(U) APPENDIX C: LAYOUT OF EMBASSY BAGHDAD CENTRAL POWER PLANT .....	51
(U) APPENDIX D: BUREAU OF ADMINISTRATION RESPONSE.....	52
(U) APPENDIX E: BUREAU OF OVERSEAS BUILDINGS OPERATIONS RESPONSE .....	55
(U) APPENDIX F: BUREAU OF OVERSEAS BUILDINGS OPERATIONS AND U.S. EMBASSY BAGHDAD, IRAQ, TECHNICAL COMMENTS.....	61
(U) OBO Technical Comments .....	61
(U) Embassy Baghdad Technical Comments .....	62
(U) ABBREVIATIONS .....	64
(U) OIG AUDIT TEAM MEMBERS .....	65

## **(U) OBJECTIVE**

---

(U) The Office of Inspector General (OIG) conducted this audit to determine whether the Department of State (Department) followed federal and Department requirements and guidelines in the planning, design, construction, and commissioning of the central power plant at U.S. Embassy Baghdad, Iraq.

## **(U) BACKGROUND**

---

(U) Security, capacity, and service continuity issues require that some posts, such as Embassy Baghdad and the new consulate compound currently under construction at U.S. Consulate General Erbil, Iraq, operate and maintain electric power sources independent from the local power grid. Some posts also generate power to supplement the service received from their local power grids.

(U) Embassy Baghdad, which opened its Baghdad Embassy Compound (BEC) in January 2009, is the largest U.S. embassy in the world. The Department planned the BEC to be self-sufficient, and to that end, it contained internal utilities, including power generation and distribution systems. In October 2009, OIG reported that the BEC construction contractor, First Kuwaiti Trading, Inc., changed the rating, arrangement, and configuration of the power generation and distribution systems.<sup>1</sup> These changes created overheating problems that were due to an increased number of generators and poor ventilation, which limited the amount of power generated.<sup>2</sup> The Embassy's original power plant, also known as the West End Power Plant, provided power until the completion of a new power plant in 2018. The original power plant was also supported by a temporary power plant, known as the East End Power Plant.

### **(U) Embassy Baghdad Power Plant Replacement Construction Project**

(U) From 2009 to 2018, the Department took actions to replace the original power plant with a new central power plant and to complete related utility upgrades. In September 2009, the Department awarded a task order under an existing indefinite-delivery, indefinite-quantity (IDIQ) contract<sup>3</sup> to Einhorn Yaffee Prescott, Inc. (EYP), an Architecture and Engineering firm (A/E), to provide a site utilization plan for the new Embassy compound located in Baghdad,

---

<sup>1</sup> (U) OIG, *Audit of the Design and Construction of the New Embassy Compound in Baghdad, Iraq*, pages 14-15 (AUD/IQO-09-25, October 2009).

<sup>2</sup> (U) OIG reported that overheating in the building was caused by the change in the number and capacity of the generators from ten 2 MW generators to eighteen 1 MW generators, which generated more heat than expected. In addition, poorly designed louvres in the building's penthouse roof constricted airflow within the building.

<sup>3</sup> (U) According to the Federal Acquisition Regulation (FAR) 16.5 – Indefinite Delivery Contracts, an IDIQ contract “may be used to acquire *supplies* and/or services when the exact times and/or exact quantities of future deliveries are not known at the time of contract award.”

Iraq.<sup>4</sup> The task order was subsequently modified in September 2011, adding design services for “power plant replacement and utility infrastructure upgrades.”<sup>5</sup> The design services related to the new central power plant EYP provided were valued at approximately \$6.4 million.

(U) In September 2012, the Department awarded a contract to Desbuild-Limak-Group 77 JV (DLG 77) for construction of the “Baghdad Power Plant, Life Safety and Infrastructure Upgrades” worth \$84.4 million, of which approximately \$79.7 million was intended for the construction of the new central power plant. Construction of the new power plant was suspended in June 2014 because of the threat from nearby Islamic State of Iraq and the Levant terrorist activities. Limited work resumed in April 2015, and construction fully restarted in September 2016 and continued until October 2018. Costs increased because of construction delays and contract modifications and, in all, the total value of the DLG 77 contract was approximately \$159.7 million, of which approximately \$111 million related to the construction of the power plant.

(U) In December 2012, the Department awarded a task order to RMF Engineering, Inc. (RMF) for general commissioning services<sup>6</sup> in Baghdad, Iraq. In December 2013, the Department modified the task order, adding the commissioning of the power plant to the existing scope of work. Total contract costs were approximately \$1.4 million, of which approximately \$844,000 related to the power plant.<sup>7</sup> The new central power plant was granted substantial completion<sup>8</sup> in October 2018, and the total value of services specifically related to the power plant was approximately \$118 million. Table 1 shows the contractors; services provided; original contract and task order award dates; overall contract and task order values; and values related to the planning, design, construction, and commissioning of Embassy Baghdad’s new central power plant. Appendix B includes a timeline of major milestones for the planning, design, construction, and commissioning of the new central power plant.

---

<sup>4</sup> (U) In 2008, AQM awarded eight IDIQ contracts to provide architecture and engineering expertise and services at various locations worldwide. AQM awarded EYP one of these contracts, SAQMMA08D0090, which specified a minimum of \$500,000 and a maximum of \$40 million (\$8 million per year). On September 25, 2009, AQM awarded EYP task order SAQMMA09F4048 to complete site utilization plans for the BEC.

<sup>5</sup> (U) SAQMMA09F4048, Modification M009, September 30, 2011. The modification included funding for two design projects: Power Plant Replacement and Utility Upgrades for \$5,569,077 and Vehicle Maintenance Facility for \$575,516.

<sup>6</sup> (U) Commissioning is the process by which the Department verifies and documents that building systems meet design intent and specified performance requirements.

<sup>7</sup> (U) The original task order for commissioning services at Embassy Baghdad, SAQMMA13F0151, did not include the power plant project. Modification M002 added the power plant project to the pre-existing task order with RMF Engineering, Inc.

<sup>8</sup> (U) Substantial completion is considered the formal milestone marking a construction project’s end, although some closeout and turnover activities take place in the 6-month window following the issuance of a Certificate of Substantial Completion by the Project Director. See Bureau of Overseas Buildings Operations, Construction & Commissioning Guidebook, pages 146-147, and 197 (July 31, 2008).

**(U) Table 1: Contractors, Award Dates, Services Provided, and Award Values for Contracts Associated With the Planning, Design, Construction, and Commissioning of Embassy Baghdad New Central Power Plant**

(U) Contractor	(U) Contract/ Task Order	(U) Contract/ Task Order Number	(U) Services Provided	(U) Award Value	
	Award Date			Total Contract Value	Value of Power Plant- Specific Work
Einhorn Yaffee Prescott, Inc.	9/25/2009	SAQMMA09F4048	Planning, Design	\$15,402,51	\$6,392,792
Desbuild- Limak-Group 77 JV	9/30/2012	SAQMMA12C0283	Construction	\$159,684,790	\$110,955,100
RMF Engineering, Inc.	12/12/2012	SAQMMA13F0151	Commissioning	\$1,355,020	\$844,235
<b>Total</b>				<b>\$176,442,322</b>	<b>\$118,192,126</b>

(U) Source: Generated by OIG from Department contract documentation involving Embassy Baghdad new central power plant.

## (U) The New Central Power Plant

### (U) Layout

(SBU) The new central power plant is housed in a utility building with two wings extending off a central section. Each wing houses five 2.6 megawatt (MW)<sup>9</sup> generators, for a maximum power generation capacity of 26 MW. Each side of the plant has a room for the switchgear that controls the operation of the generators, as well as fuel supply connections for each generator room. (b) (3) (A)

[REDACTED] A detailed layout of the Embassy Baghdad new central power plant is shown in Appendix C of this report.

### (U) Performance Problems and Inefficiencies

(SBU) In the December 2019 commissioning report, RMF stated that “overall, the USG has been provided a fully functional, quality project.” However, RMF identified significant deficiencies and made recommendations for correction. (b) (3) (A), (b) (5)

[REDACTED] <sup>10</sup> (b) (3) (A), (b) (5)

<sup>9</sup> (U) A watt is a standard unit of power in the International Systems of Units; a megawatt is a unit of power equal to one million watts, and it is commonly used as a measure of the output of a power station.

<sup>10</sup> (SBU) (b) (3) (A), (b) (5)

(b) (3) (A), (b) (5) Since that time, the plant has experienced significant performance problems and operational deficiencies, including multiple unplanned power outages and generator failures, that have negatively impacted embassy operations and raised security and safety concerns.

(U) Since the central power plant came online in October 2018, it has experienced unplanned outages and additional mechanical failures caused by various factors, including high temperatures in the power plant. In addition, in June 2019 and May 2023, two generators experienced catastrophic failures, resulting in a loss of power generation capacity and significant costs. Moreover, a defective power plant may require more repairs than a well-functioning one, resulting in additional costs for parts and labor and interruptions to power generation.

(U) The Bureau of Overseas Buildings Operations (OBO) and Embassy Baghdad's Facilities Maintenance Office have applied remedial actions to address the central power plant's deficiencies with mixed success. The Miller Hull Partnership, LLP, and Mason and Hanger, Inc., study reported that portable evaporative coolers and fans were added in the generator rooms to reduce internal temperatures, and four large air conditioning units were installed outside the plant to blow cold air into the generator rooms; however, during summer months the electrical needs of the compound increase, and the plant is not cool enough to run the generators at their intended capacity. Therefore, to avoid power outages during the summer, the central power plant runs at a lower capacity, and the remaining electrical load is supplied by four stand-alone generators scattered around the compound. Figure 1 shows air conditioning units installed on the south side of the new central power plant to reduce the temperatures in the generator rooms.

**(U) Figure 1: Air Conditioning Units Outside the New Central Power Plant**



**(U) Source:** The Miller Hull Partnership, LLP, and Mason and Hanger, Inc., "BEC Power Plant Study, Draft Final Report, Baghdad, Iraq," September 6, 2022.

(U) In January 2022, OBO awarded a \$3.6 million contract to the Miller Hull Partnership, LLP, and its partner, Mason and Hanger Inc., to conduct a "forensic" study of the central power

plant, known as the “BEC Power Plant Study,” to identify deficiencies and offer recommendations for corrective measures. In a draft report,<sup>11</sup> the study identified several factors contributing to the performance and operations problems, including deficient airflow in the generator rooms, and noted that the airflow was designed to flow across the generators in the opposite direction recommended by the generator manufacturer.

## **(U) Roles and Responsibilities for Department Contracting and Overseas Building**

### ***(U) Bureau of Overseas Buildings Operations***

(U) OBO directs the Department’s worldwide overseas building program and manages thousands of Department properties abroad. Funded through the Embassy Security, Construction, and Maintenance appropriation, OBO is responsible for providing U.S. diplomatic and consular missions overseas with safe, secure, functional, and resilient facilities to enable the achievement of U.S. foreign policy objectives abroad. These facilities are intended to provide secure and functional workspace for the 90,431 total authorized positions, including office space for 61,460 U.S. personnel. OBO sets worldwide priorities for the design, construction, acquisition, maintenance, use, and sale of these facilities.

(U) OIG focused this report on four phases of OBO’s projects: planning, design, construction, and commissioning. The planning phase establishes the framework for short-term and future facilities development at U.S. diplomatic missions. OBO drafts quantitative and qualitative long-term development plans and planning studies, which may include actions including reuse, retention, development, and acquisition of properties. Moving from planning to design, an OBO planning review provides an opportunity for stakeholders to make suggestions and establish requirements that may be reflected in the design. The Department requires certain unique design features, and OBO has a compliance review that focuses primarily on technical requirements, including quality and security standards. The OBO office responsible for planning is the Office of Master Planning and Evaluations, and the office responsible for design is the Office of Program Development, Coordination, and Support. Both offices are located in Washington, DC. The General Contractor for construction is responsible for execution of all work included in the construction contract.<sup>12</sup> The commissioning phase is performed by a third-party contractor, which verifies and documents that the construction contractor complied with design documentation and met operational requirements and that building systems meet design intent and specified performance requirements.

### ***(U) Bureau of Administration***

(U) The Bureau of Administration, Office of the Procurement Executive (A/OPE), provides leadership in overseeing Department-wide acquisition policies. Under A/OPE, the Office of Acquisitions Management (AQM) manages the Department’s acquisition programs and

---

<sup>11</sup> (U) As of September 2023, the Miller Hull Partnership, LLP, and Mason and Hanger Inc., final report had not been completed.

<sup>12</sup> (U) Bureau of Overseas Buildings Operations, Construction Management Guidebook, pages 3-13 (November 2021).

conducts contract operations in support of all phases of OBO construction projects worldwide. In doing this, AQM provides a full range of professional contract management services, including acquisition planning, contract negotiations, cost and price analysis, and contract administration.

(U) AQM also works with OBO's Office of Project Development and Coordination, which leads OBO's acquisition activities for projects, including development of the solicitation, supporting documentation, and contract award.<sup>13</sup> According to AQM's Customer Guide for Contracting, the requiring office – that is, the office that wants to have something purchased – and AQM are responsible for acquisition planning and market research.<sup>14</sup>

***(U) U.S. Embassy Baghdad, Iraq***

(U) As described above, OBO directs the Department's worldwide overseas building program and manages thousands of Department properties abroad. As at other embassies, Embassy Baghdad has a facilities management office, which oversees facilities projects and maintenance of the embassy for OBO, which reports to both Embassy Baghdad's executive office and OBO headquarters in Washington, DC. OBO establishes an onsite office on designated projects, staffed by professional construction engineers, an engineering staff, and an administrative staff. The composition and number of technical personnel and staff in the other disciplines will depend on the requirements of the project. The Construction Manager is onsite and coordinates efforts so that specific technical issues are quickly investigated and resolved by making valid recommendations or giving options to the Project Director; they also support the administration and management of the construction contract. In addition, OBO's Project Director, who reports to OBO in Washington, DC, is onsite fulltime and responsible for the management of major projects onsite, including all aspects of the construction project contract, to include safety, security, quality assurance, and reporting. The OBO Project Director also oversees commissioning, verifies that the work is substantially complete, and ensures that the acceptance and transition to occupancy are carried out in accordance with established policies and procedures.

---

<sup>13</sup> (U) 1 Foreign Affairs Manual (FAM) 285.3(5), "Office of Project Development and Coordination (OBO/PDCS/PDC)."

<sup>14</sup> (U) Office of Acquisitions Management, Customer Guide for Contracting, pages 11 and 13 (updated March 2021).

## (U) AUDIT RESULTS

---

### **(U) Finding: The Department Did Not Always Follow Federal and Department Requirements and Guidelines in the Planning, Design, and Commissioning of Embassy Baghdad's New Central Power Plant**

(U) OIG found that the Department did not always follow federal and Department requirements and guidelines in the planning, design, and commissioning of the new central power plant at Embassy Baghdad and missed opportunities to correct identified deficiencies at each project phase, including during the construction phase when the deficiencies became apparent. Specifically, with respect to the planning phase, AQM did not comply with federal regulations regarding fair and reasonable pricing when awarding the task order to develop the site utilization plan for the Baghdad new embassy compound. With respect to the design phase, OBO and AQM did not comply with the process for selecting the most highly qualified architect-engineer to design the power plant. Also, the design review process failed to identify inadequate air flow in the design. With respect to the construction phase, technical issues with the design were identified during construction but were not always addressed. For example, the construction contractor requested that OBO check and verify that the designed ventilation system was sufficient to ventilate the engine room area because the generator manufacturer had calculated that more airflow was needed. In response, OBO stated that the design met the plant's ventilation needs. With respect to the commissioning phase, commissioning for the plant began 14 months after the construction phase began, which was contrary to OBO's guidance stating that it begins before the design phase for the purposes of identifying problems early. In addition, OBO concluded the commissioning process without resolving outstanding concerns regarding inadequate ventilation and airflow and ignored results of power plant performance testing and recommendations to conduct further testing.

(U) During this audit, embassy and contractor personnel acknowledged that OBO and AQM did not always follow established federal and Department requirements when executing the new central power plant project. This was primarily due to the desire to expedite completion of the project. Consequently, the Department missed opportunities during design, construction, and commissioning to address known deficiencies that have now become liabilities. Specifically, persistent performance problems with the central power plant have required the Department to incur significant costs attempting to mitigate the problems and provide reliable service. Until the deficiencies that allowed OBO and AQM to depart from federal and Department requirements are corrected, ongoing and future power plant projects undertaken by the Department could be in jeopardy and experience similar costly results.

### ***(U) The Department Did Not Always Follow Federal and Department Requirements and Guidelines in the Planning of the New Central Power Plant at Embassy Baghdad***

(U) OBO and AQM did not always follow federal regulations and Department requirements in the planning of the new central power plant. Specifically, AQM did not comply with federal regulations regarding fair and reasonable pricing when awarding the task order. In addition, the

task order did not mention a new power plant, and the planning documentation reviewed for this audit did not include a justification for a new power plant. Moreover, Department officials interviewed for this audit were uncertain of the rationale for constructing a new power plant.

*(U) AQM Did Not Follow Federal Regulations and Department Policies Regarding Fair and Reasonable Pricing When Awarding the Task Order for Embassy Baghdad Site Utilization Planning*

(U) AQM did not comply with federal regulations regarding fair and reasonable pricing when it provided the government's independent cost estimate directly to a firm during the solicitation<sup>15</sup> of the task order for Embassy Baghdad site utilization planning. According to the Federal Acquisition Regulation (FAR),<sup>16</sup> access to information concerning the government estimate, or independent government cost estimate (IGCE), shall be limited to government personnel whose official duties require knowledge of the estimate. Although the FAR allows exceptions under certain conditions, this procurement did not meet those conditions. Therefore, AQM violated federal regulations prohibiting the sharing of information regarding the independent government cost estimate, and as a result, the Department lacked assurance that it paid a fair and reasonable price for the requested services.

(U) During the transition from a predominantly military-led to a civilian-led mission in Iraq, the Department assessed U.S. facilities and compounds across Iraq to determine which properties the Department would acquire and incorporate into its planned embassy and consulate compounds. In July 2008, as part of the transition, the Department awarded IDIQ SAQMMA08D0090 to EYP for the purpose of providing "architectural/engineering expertise and services at various locations worldwide." The IDIQ contract emphasized that work would be accomplished through individual task order work statements issued by the Contracting Officer. When new work was assigned, the task order represented an order for services placed against the established contract. In 2009, the Department decided to develop a comprehensive site utilization plan for the new embassy compound that would guide the compound's future development. On September 25, 2009, the Contracting Officer awarded task order SAQMMA09F4048, valued at \$1.5 million, to EYP under its existing IDIQ contract. The purpose

---

<sup>15</sup> (U) FAR 2.101. "Solicitation means any request to submit offers or quotations to the Government. Solicitations under sealed bid procedures are called 'invitations for bids.' Solicitations under negotiated procedures are called 'requests for proposals.' Solicitations under simplified acquisition procedures may require submission of either a quotation or an offer."

<sup>16</sup> (U) FAR 36.605(b), "Government cost estimate for architect-engineer work," states that "Access to information concerning the Government estimate shall be limited to Government personnel whose official duties require knowledge of the estimate. An exception to this rule may be made during contract negotiations to allow the contracting officer to identify a specialized task and disclose the associated cost breakdown figures in the Government estimate, but only to the extent deemed necessary to arrive at a fair and reasonable price. The overall amount of the Government's estimate shall not be disclosed except as permitted by agency regulations."

of the task order was “to provide a site utilization plan for new Embassy compound located in Baghdad, Iraq,” in accordance with a work statement dated a few days prior.<sup>17</sup>

(U) However, OIG found that AQM did not comply with federal regulations regarding fair and reasonable pricing when awarding the EYP site utilization task order. For example, on the same day that EYP submitted a proposed price of \$1,499,247 for the task order, OBO sent an email advising AQM of EYP’s selection. Thirteen days earlier, the AQM Contracting Officer sent the Request for Proposal to EYP via email, providing EYP with a “Guesstimate” price of \$1.5 million for the task order, reflecting the IGCE price. However, access to the IGCE should have been limited to government personnel whose official duties required knowledge of the estimate. Although FAR 36.605(b) would have allowed an exception for the Contracting Officers to share the “Guesstimate” price during contract negotiations “to the extent deemed necessary to arrive at a fair and reasonable price,”<sup>18</sup> the exception was not applicable to this situation in which the Contracting Officer shared the IGCE prior to any negotiations. Instead, the “Guesstimate” implied that if EYP were to submit a proposal at that amount, it would receive the task order for that amount. EYP then submitted the proposal to the Contracting Officer in the amount of \$1.5 million, and the Contracting Officer awarded the task order in the amount of \$1.5 million the following day.<sup>19</sup> In providing EYP the IGCE, the Contracting Officer violated federal regulations.<sup>20</sup> This was due to inattention to the regulations, and as a result, the Department lacked assurance that it had paid a fair and reasonable price for the requested services. OIG is therefore offering the following recommendation.

**Recommendation 1:** (U) OIG recommends that the Bureau of Administration, in coordination with the Bureau of Overseas Buildings Operations, issue a directive (1) emphasizing the requirement to comply with Federal Acquisition Regulation 36.605(b), which states that access to information concerning the independent government cost estimate shall be limited to government personnel whose official duties require knowledge of the estimate and (2) underscoring accountability and identifying penalties for noncompliance.

**(U) Management Response:** The Bureau of Administration concurred with the recommendation, stating that the new Department of State Acquisition Manual (DOSAM), released on October 1, 2023, was responsive to the intent of OIG’s recommendation. Specifically, the bureau stated that the DOSAM provided “clear guidance to all contracting professionals on the order of precedence of acquisition regulation and policy.” Furthermore, the bureau stated that the DOSAM superseded “in precedence any internal office instructions, policies, or procedures such as those the

---

<sup>17</sup> (U) The statement of work was dated September 23, 2009.

<sup>18</sup> (U) FAR 36.605(b).

<sup>19</sup> (U) The “Guesstimate” price AQM provide EYP was \$1,500,000. EYP’s proposal, and the original value of the task order, was \$1,499,248, which is \$752 less than the “Guesstimate” price.

<sup>20</sup> (U) OIG attempted to contact the Contracting Officer who provided the independent government cost estimate to the contracting company, but the individual was no longer with the Department.

Head of Contracting may issue.” They noted that some pertinent parts and subparts of the DOSAM were:

- (U) Subpart 601.6, “Career Development, Contracting Authority, and Responsibilities,” which supplements FAR Part 1 in further describing Department of State employee responsibilities;
- (U) Part 607, “Acquisition Planning,” which includes a Procurement Integrity Notice on unauthorized disclosure of sensitive information and establishes required planning activities the procurement team must engage in; and
- (U) Part 636, “Construction and Architect-Engineer Contracts,” which specifically supplements FAR Part 36 requirements for process and procedure.

(U) The Bureau of Administration asserted that, in issuing the DOSAM, it had effectively met and exceeded the scope of the recommendation by “shifting the acquisition governance paradigm at the Department and by emphasizing the requirement to comply with the FAR, DOSAR, DOSAM, and other internal instructions, policies, and procedures.” Finally, the bureau stated that, in support of issuing the DOSAM, it had developed training sessions on the DOSAM and that the schedule for these trainings had been published to the acquisition workforce by email and on its website and that a training video for the DOSAM will be published to its website as well.

**(U) OIG Reply:** On the basis of the Bureau of Administration’s stated concurrence, OIG considers the recommendation resolved, pending further action. The basis for this recommendation was OIG’s finding that a Contracting Officer had provided, on multiple occasions, the independent government cost estimates for several contracts and task orders directly to a firm during the solicitation of the task order, which is prohibited by FAR 36.305(b). The intent of this recommendation, therefore, was that the bureau, in coordination with OBO, should re-emphasize to contracting personnel that *existing* requirements limit access to information concerning the independent government cost estimate only to government personnel whose official duties require knowledge of the estimate, and that those failing to follow this requirement would be held accountable for noncompliance. Although the newly issued DOSAM and cited training may provide more clarity on the order of precedence of acquisition regulation and policy, these actions do not directly address the intent of OIG’s recommendation. In addition, OIG notes that the bureau’s actions in response to this recommendation should be coordinated with the Bureau of Overseas Buildings Operations and should underscore accountability and identify penalties for noncompliance.

(U) This recommendation will be closed when OIG receives documentation demonstrating that the Bureau of Administration, in coordination with the Bureau of Overseas Buildings Operations, has issued a directive that (1) emphasizes the requirement to comply with Federal Acquisition Regulation 36.605(b), which states that access to information concerning the independent government cost estimate shall be

limited to government personnel whose official duties require knowledge of the estimate and (2) underscores accountability and identifies penalties for noncompliance.

*(U) Embassy Baghdad Site Utilization Planning Did Not Address a New Power Plant*

(U) The task order for Embassy Baghdad site utilization planning did not mention a new power plant, and the planning documentation reviewed for this audit did not include a justification for a new power plant. Moreover, Department officials interviewed for this audit were uncertain of the rationale for constructing a new power plant.

(U) According to the Foreign Affairs Manual (FAM),<sup>21</sup> OBO directs and prepares comprehensive facility and master plans of specific posts' facility needs. The site utilization plans under task order SAQMMA09F4048, awarded in September 2009, were developed to support ongoing and future facilities projects across Iraq, including at the BEC. Specifically, the site utilization plans were meant to reflect existing facilities, proposed future facilities projects, and the utilities that would be needed to support them. However, OIG reviewed each of the site utilization plans prepared under this task order and determined that a new or replacement power plant was not mentioned in any of these deliverables.<sup>22</sup> The scope of work under task order SAQMMA09F4048 consisted of five subtasks and deliverables:

1. (U) Create a "Baseline Site Utilization Plan," including accurate as-built documents for the existing compound and a "Baghdad Utility Gap Analysis" spreadsheet that documents the current uses and occupants of the principal buildings on the compound.
2. (U) Prepare an "Updated Site Utilization Plan" to incorporate the as-built conditions for the on-going and follow-on projects described in the scope of work.
3. (U) Complete a "Proposed Site Utilization Plan" planning the major follow-on projects that will impact the site plan or any aspect of the compound's infrastructure; deliverables included drawings of the Proposed Site Utilization Plan and a report documenting the planning assumptions and requirements for the follow-on projects and an updated Baghdad Gap Analysis reflecting utility improvements needed to support new facilities on the compound's utility infrastructure.
4. (U) Provide "Project Controls" to support ongoing projects and any other follow-on projects initiated during the period of performance of the task order.

---

<sup>21</sup> (U) 1 FAM 284, "Managing Director for Planning and Real Estate," and 1 FAM 284.1, "Office of Master Planning and Evaluations."

<sup>22</sup> (U) According to the A/OPE, Overseas Contracting and Simplified Acquisition Guidebook, Twenty First Edition (January 2020) Chapter 7, page 6 (updated January 2020), "All Government contracts—regardless of the nature, complexity, or dollar value—require certain contract administration steps. Those steps include, but are not limited to, monitoring progress, reviewing invoices, processing payments, inspecting deliverables, and closing out the contract file. These actions are sometimes referred to as 'routine' contract administration."

5. (U) Assist the Department in its "Transition Planning" for the impact on the embassy's facilities that will be associated with the phased draw down of the U.S. military presence in Iraq over the next 2 years.

(U) Although the task order required EYP to complete a utility gap analysis, neither OBO nor AQM could provide any documentation demonstrating that such an analysis had been completed. The task order's first subtask, creating a Baseline Site Utilization Plan, specifically required the contractor to "review, verify, and complete the information contained in the spreadsheet Baghdad Utility Gap Analysis." The purpose of the gap analysis was to provide information on the BEC's future utility requirements, which would be crucial for determining the need for expanding power production capacity. Although OIG reviewed the Baseline Site Utilization Plan, the Department did not provide the "Baghdad Utility Gap Analysis," despite multiple requests. Therefore, OIG could not determine whether EYP completed this contract requirement. Without this document, it is unclear whether OBO fully assessed the BEC's future utility needs prior to the decision to construct a new power plant.

(U) Along with the lack of reference to a power plant in the task order requirements, planning documentation created by EYP listed a new or replacement power plant only as an optional project on select drawings. Furthermore, the documentation did not provide any information regarding when or why a new power plant or upgrades to the existing power plant would be necessary.

(U) As part of its task order, EYP delivered to OBO a report entitled "Working Draft Master Plan Report for the U.S. Embassy & Related Facilities in Baghdad, Iraq" dated May 30, 2010. In accordance with the task order's "Transition Planning" subtask, the draft master plan report included drawings with space labeled "Power Plant Replacement/Upgrade." In addition, the draft master plan report mentioned the space occupied by the old power plant, alluding twice to alternative uses should a new power plant be constructed. The draft report also listed a "primary power plant" as an optional facility in a drawing titled "Proposed NEC Master Plan."

(U) However, the section of the draft master plan report that provided the programming information and concept plans for proposed future facilities at the BEC did not mention a power plant project. In contrast, this section did list, for example, the expansion of the Vehicle Maintenance Facility. Nonetheless, in September 2011, AQM and OBO modified EYP's task order to include design services for a vehicle maintenance facility and a new central power plant. This modification was the first document to indicate that a new central power plant would be built. Prior to the modification for the power plant's design, these brief references to a new or replacement power plant were the only times a power plant was mentioned in the draft master plan report. Furthermore, the draft master plan report did not include any assessment of the compound's utility needs or the added demand of proposed facilities. This draft master plan report was the only documentation related to master planning that OBO and AQM provided to OIG.

(U) Furthermore, none of the OBO and AQM officials OIG interviewed could recall the rationale for initiating the new power plant project. Over the course of audit fieldwork, OIG interviewed OBO officials who provided varying answers as to why a new power plant was built. One official who had been working at the BEC around 2012 said that maintenance of the old power plant was “impossible.” A contractor involved in planning the new power plant remembered issues with how the previous power plant distributed power to the embassy compound and noted that the old power plant used smaller generators that could not support the compound’s long-term power needs.

(U) One current embassy official, who had worked at the BEC for more than 10 years, thought that the old power plant was replaced because of an OIG recommendation. An OIG report issued in October 2009 noted deficiencies with the original power plant.<sup>23</sup> Another OIG report from May 2011 that addressed U.S. Government preparations for transitioning to civilian-led operations in Iraq<sup>24</sup> discussed the additional strain that new facilities would put on utilities, including the power plant. While both reports mentioned the old power plant, neither report included a recommendation to construct a new power plant. Without a documented justification explaining the rationale for the new central power plant, Department officials were unable to attest to the necessity for a new central power plant or justify the resource investment. OIG is therefore offering the following recommendation.

**Recommendation 2:** (U) OIG recommends that the Bureau of Overseas Buildings Operations develop, implement, and communicate a process to require documentation that comprehensive needs assessments are conducted, detailed options are discussed, and written justifications are made when deciding to construct major projects at overseas posts.

**(U) Management Response:** OBO concurred with the recommendation, stating that it has made continuous improvements to its process to require documentation for comprehensive needs assessments.

**(U) OIG Reply:** On the basis of OBO’s stated concurrence, OIG considers the recommendation resolved, pending further action. This recommendation will be closed when OIG receives documentation demonstrating that the bureau has developed, implemented, and communicated a process to require documentation that comprehensive needs assessments are conducted, detailed options are discussed, and written justifications are made when deciding to construct major projects at overseas posts.

---

<sup>23</sup> (U) AUD/IQO-09-25, pages 14-15. OIG notes that although this report identified deficiencies within the original power plant, associated recommendations focused on cost recovery from the original construction contractor rather than on specific corrective actions to the plant and electrical systems.

<sup>24</sup> (U) OIG, *Department of State Planning for the Transition to a Civilian-led Mission in Iraq* (MERO-I-11-08, May 2011).

***(U) The Department Did Not Always Follow Federal and Department Requirements and Guidelines in the Design of the New Central Power Plant at Embassy Baghdad***

(U) OIG found that the Department did not always follow public law, federal regulations, and Department requirements in the design of the new central power plant. Specifically, the Department issued multiple out-of-scope modifications and did not comply with federal and Department requirements for ensuring fair and reasonable prices. In addition, AQM and OBO did not complete acquisition planning and market research before awarding the modification to the task order to EYP for designing the new Embassy Baghdad central power plant. OBO and AQM also did not comply with requirements for selecting the most highly qualified A/E firm to design the power plant. In addition, the lack of Owner's Project Requirements (OPR), a document detailing the functional requirements of a project, caused confusion regarding the design and intended operation of the power plant. Furthermore, OBO did not comply with Department policy regarding the Integrated Design Review (IDR) process. Finally, significant changes to the design were not fully documented.

***(U) The Department Issued Multiple Out-of-Scope Modifications and Did Not Comply With Federal and Department Requirements for Ensuring Fair and Reasonable Prices***

(U) The Department issued multiple out-of-scope modifications to the task order for Embassy Baghdad site utilization planning. In addition, the Department did not comply with federal and Department requirements for ensuring fair and reasonable prices. According to federal regulations<sup>25</sup> and Department policy,<sup>26</sup> the Contracting Officer must determine, for all modifications, whether the change is within the general scope of the contract or task order. The process of determining what is within the scope includes analyzing the statement of work and all other contract or task order terms and conditions as originally awarded. Changes that are not within the general scope of the contract must be treated as a new procurement. If they are solicited noncompetitively, they must be justified as other than full and open competition.<sup>27</sup>

(U) OIG found that in September 2011, AQM issued modification M009 to task order SAQMMA09F4048, which added \$5.6 million to design a replacement power plant and associated utility upgrades.<sup>28</sup> Modifications M015 and M017 added approximately \$355,000

---

<sup>25</sup> (U) FAR 43.201(a) states, "Generally, Government contracts contain a changes clause that permits the contracting officer to make unilateral changes, in designated areas, within the general scope of the contract. These are accomplished by issuing written change orders on Standard Form 30, Amendment of Solicitation/Modification of Contract (SF 30), unless otherwise provided (see 43.301)."

<sup>26</sup> (U) AQM, Overseas Contracting and Simplified Acquisition Guidebook, Chapter 8, page 8 (updated January 2020).

<sup>27</sup> (U) Ibid. In addition, in 1978, the Comptroller General of the United States issued a decision stating, "if the contract as changed is materially different from the contract for which competition was held, the contract should be terminated and the new requirement competed, unless a noncompetitive procurement is justifiable." See Government Accountability Office, Matter of American Air Filter Company, Inc., (Decision B-188408, February 16, 1978, 57 Comp. Gen. 285), page 2.

<sup>28</sup> (U) M009 also included \$575,516 for EYP to design a new vehicle maintenance facility at the BEC.

and \$469,000, respectively, for additional design services related to the power plant. Table 2 summarizes the modifications to task order SAQMMA09F4048 that added design services for the power plant.

**(U) Table 2: Summary of Modification Numbers M009, M015, and M017 to Task Order SAQMMA09F4048 To Include Design Services for the New Central Power Plant and Related Utilities**

<b>(U) Modification Number</b>	<b>(U) Date Awarded</b>	<b>(U) Award Amount</b>	<b>(U) Summary of Modification Scope</b>
M009	09/30/2011	\$5,569,077*	"Provide funding for the power plant/utility upgrades and for the implementation of the vehicle maintenance facility master plan."
M015	05/15/2013	\$354,995	"Provide funding for additional design services related to the Embassy power plant replacement and infrastructure upgrade project."
M017	09/13/2013	\$468,720	"Provide funding for additional design services for the Baghdad power plant project."
<b>Total</b>		<b>\$6,392,792</b>	

\* (U) The total value of modification M009 was \$6,144,593. The Power Plant Replacement and Utility Upgrades portion was \$5,569,077, and the Vehicle Maintenance Facility portion was \$575,516.

**(U) Source:** OIG generated based on a review of task order SAQMMA09F4048 modifications M009, M015, and M017.

(U) OIG questions whether the design services added to task order SAQMMA09F4048 in modifications M009, M015, and M017 were within the task order's scope. The original task order required EYP to develop site utilization plans, and neither the replacement power plant nor any design services were included in the original task order. However, on September 19, 2011, the Contracting Officer issued EYP a Request for Proposal with the intention of modifying task order SAQMMA09F4048. The statement of work for the modification required EYP to "develop full construction documents and prepare the Request for Proposal (RFP) documents for inclusion in a Fed-Biz Ops construction solicitation for the required power plant and utility infrastructure upgrades." In addition, the statement of work for the modification required a complete design of the replacement power plant sufficient to accommodate all existing facilities and enough capacity to accommodate planned new facilities identified in the overall master plan. Notwithstanding these significant changes, when awarding the design contract for the new central power plant to EYP as a modification, OIG could find no documentation showing that the Contracting Officer had determined whether the modifications were within the scope or had obtained the required approvals for a sole source justification.

(U) In addition, AQM did not comply with Department requirements regarding negotiation of a fair and reasonable price. As previously discussed in this report, providing the IGCE to the contractor at the same time as requesting a proposal from the contractor violates federal

regulations and Department requirements intended to ensure fair and reasonable prices.<sup>29</sup> Of the 23 contract modifications under the task order, 17 modifications added services to the original task order totaling more than \$13 million. For 15 of the 17 modifications that added services, the Contracting Officer provided EYP with a “guesstimate” cost that reflected the IGCE when requesting EYP to provide a pricing proposal. Furthermore, all 15 modifications for which the Contracting Officer shared the IGCE were awarded for the price proposed by EYP.<sup>30</sup>

(U) The Department did not comply with federal regulations by executing multiple out-of-scope modifications and by providing the contractor with the IGCE. By making contract modifications that were not within the general scope of the original contract, the Department did not comply with the requirement to treat changes that were not within the general scope as a new procurement. In addition, by not following federal regulations and giving the IGCE for the modifications to the contractor, the Department could not be assured that it had received a fair and reasonable price. OIG is therefore offering the following recommendation.

**Recommendation 3:** (U) OIG recommends that the Bureau of Administration, in coordination with the Bureau of Overseas Buildings Operations, develop, implement, and communicate a process to ensure that new work that is not within the general scope of the contract or task order is treated as a new procurement, preventing out-of-scope modifications, as required by federal regulations and Department requirements.

**(U) Management Response:** The Bureau of Administration concurred with the recommendation, stating that the launch of the DOSAM, as described in its response to Recommendation 1, shifted the acquisition governance paradigm at the Department. As a result, the bureau requested that the recommendation be closed as implemented based on the release of the DOSAM.

**(U) OIG Reply:** On the basis of the Bureau of Administration’s stated concurrence, OIG considers the recommendation resolved, pending further action. OIG reviewed the DOSAM sections cited in the bureau’s response and found nothing addressing a process to ensure that new work that is not within the general scope of the contract or task

---

<sup>29</sup> (U) FAR 36.605(b), “Government cost estimate for architect-engineer work,” states, “Access to information concerning the Government estimate shall be limited to Government personnel whose official duties require knowledge of the estimate. An exception to this rule may be made during contract negotiations to allow the contracting officer to identify a specialized task and disclose the associated cost breakdown figures in the Government estimate, but only to the extent deemed necessary to arrive at a fair and reasonable price. The overall amount of the Government’s estimate shall not be disclosed except as permitted by agency regulations.” An exception to this regulation would not have been applicable because the exception applies during negotiations but in this instance the contracting officer provided the contractor with “the Guestimate” and the RFP (Request For Proposal) at the same time (well before negotiations would have taken place).

<sup>30</sup> (U) OIG reviewed multiple emails from an AQM contracting officer sending the IGCE to the contractor. One instance was for a modification that added additional design services for the power plant to the overall task order. On May 6, 2013, the Contracting Officer sent an email that stated: “See attached. Need prop. soonest. Guesstimate = \$355k . . .” The contracting company then sent a proposal dated May 13, 2013, for the amount of \$354,995, and the modification was awarded on May 13, 2013, for \$354,995.

order is treated as a new procurement, preventing out-of-scope modifications. In addition, OIG notes that the bureau's actions in response to this recommendation should be coordinated with OBO.

(U) This recommendation will be closed when OIG receives documentation demonstrating that the Bureau of Administration, in coordination with OBO, developed, implemented, and communicated a process to ensure that new work that is not within the general scope of the contract or task order is treated as a new procurement, preventing out-of-scope modifications, as required by federal regulations and Department requirements.

*(U) OBO and AQM Did Not Follow Federal Regulations and Department Policies Requiring Acquisition Planning and Market Research Before Executing the Out-Of-Scope Modification for Design Services*

(U) In addition, OIG found that AQM and OBO did not follow federal regulations and Department policies requiring that acquisition planning and market research for the central power plant project be conducted before executing the modification for design services. The FAR and Department of State Acquisition Regulation<sup>31</sup> require that the Government conduct acquisition planning and market research with the goal of arriving at the most suitable approach to acquiring, distributing, and supporting supplies and services. The Foreign Affairs Handbook<sup>32</sup> states that such acquisition planning is the key to effective use of public funds and the economical accomplishment of program objectives. Furthermore, acquisition planning must be initiated by the program office as soon as a need is identified. Moreover, according to the AQM Customer Guide for Contracting,<sup>33</sup> before submitting a procurement request to the Contracting Officer, the program office must do the necessary market research to "see what's out there" and determine what supplies or services are currently offered in the market, by whom, and at what competitive range in price. FAR 43.201 allows Contracting Officers to unilaterally modify contracts in designated areas within the general scope of the contract; however, changes outside the general scope of the contract require either termination of the contract or justification for a noncompetitive procurement.<sup>34, 35</sup>

(U) OIG found that despite the significant changes to the scope of work and increases in funding in modification M009, AQM and OBO did not complete the required acquisition planning and

---

<sup>31</sup> (U) Acquisition planning is described in FAR Part 7.102, "Policy," and the Department of State Acquisition Regulation Part 607.105, "Contents of Written Acquisition Plans."

<sup>32</sup> (U) 14 Foreign Affairs Handbook-2 H-321(a), "General."

<sup>33</sup> (U) Office of Acquisitions Management, Customer Guide for Contracting, page 28 (updated April 2021).

<sup>34</sup> (U) Government Accountability Office, Matter of Air Filter Co., Inc., (Decision B-188408, February 15, 1978), page 2.

<sup>35</sup> (U) FAR 6.001(c) "Competition Requirements" states competition requirements are applicable to "Contract modifications, that are within the scope of the contract."

market research or provide a justification for a noncompetitive procurement. Given the potential for a significant change in the scope of work and task order value, the Department should have conducted acquisition planning and market research for power plant design services or provided a justification to issue a noncompetitive procurement prior to executing the modification. However, AQM and OBO could not demonstrate that such acquisition planning and market research had been conducted, nor could they provide a noncompetitive procurement justification supporting the modification. In addition, Department officials contacted for this audit were unsure that the planning and research had been done because key documentation could not be located. Market research is critical to ensure the most suitable approach to acquiring services. Without conducting the required planning and research, the Department may have missed opportunities to ensure the most effective and economical approach to completing the new power plant project. OIG is therefore offering the following recommendation.

**Recommendation 4:** (U) OIG recommends that the Bureau of Administration, in coordination with the Bureau of Overseas Buildings Operations, issue a directive (1) emphasizing that acquisition planning and market research are completed and documented prior to initiating new projects at overseas posts, as required by federal regulations and Department of State requirements, and (2) underscoring accountability and identifying penalties for noncompliance.

**(U) Management Response:** The Bureau of Administration concurred with the recommendation, stating that the launch of the new DOSAM, as described in its response to Recommendation 1, shifted the acquisition governance paradigm at the Department. As a result, the bureau requested the recommendation be closed as implemented based on the release of the DOSAM.

**(U) OIG Reply:** On the basis of the Bureau of Administration's stated concurrence, OIG considers the recommendation resolved, pending further action. The basis of this recommendation was OIG's finding that the Bureaus of Administration and OBO did not follow federal regulations and Department policies requiring that acquisition planning and market research for the central power plant project be conducted before executing the modification for design services. The intent of this recommendation, therefore, was that the Bureau of Administration, in coordination with OBO, re-emphasize to contracting personnel that *existing* regulations and policies require that, before submitting a procurement request, acquisition planning and market research are conducted to ensure the most effective and economical approach to acquiring and providing goods and services. In addition, OIG notes that the Bureau of Administration's actions in response to this recommendation should be coordinated with OBO and should underscore accountability and identify penalties for noncompliance.

(U) This recommendation will be closed when OIG receives documentation demonstrating that the Bureau of Administration, in coordination with OBO, has issued a directive that (1) emphasized that acquisition planning and market research are to be

completed and documented prior to initiating new projects at overseas posts, as required by federal regulations and Department of State requirements, and (2) underscored accountability and identified penalties for noncompliance.

*(U) The Department Did Not Comply With Federal and Department Requirements and Guidelines for Selecting the A/E Firm To Design the Power Plant*

(U) OIG found that the Department did not comply with public law, federal regulations, and Department requirements for selecting the most highly qualified A/E firm to design the new central power plant at a fair and reasonable price. As noted previously, the Department incorrectly modified the existing task order for Embassy Baghdad site utilization planning to also include design services for the new central power plant rather than treat the design services as a new procurement. Architectural-Engineering<sup>36</sup> services are defined in public law as “professional services of an architectural or engineering nature, or incidental services,” including comprehensive planning, conceptual designs, plans, specifications, and construction phase services.<sup>37</sup> This public law requires the selection of the most highly qualified firms based on demonstrated competence and professional qualifications and the negotiation of a fair and reasonable price. Specifically, the law emphasizes that an agency initially identify at least three architectural and engineering firms based upon their competency, qualifications, and experience.<sup>38</sup> This statute provides the framework under which an agency contracts for A/E services and requires negotiation of fair and reasonable prices with the most highly qualified firm. If the most highly qualified firm will not agree to a fair and reasonable price, the Department should terminate those negotiations and negotiate a fair and reasonable price with the second most highly qualified firm, continuing that process until reaching agreement at a fair and reasonable price with a qualified firm.<sup>39</sup> Negotiations with the most highly qualified firm(s) are required since price competition does not exist on A/E contracts.<sup>40</sup> The FAR implements this statute and details the procedures for acquiring the A/E services.<sup>41, 42</sup>

(U) OIG found that during the planning phase, the Department convened a selection panel to evaluate the credentials of several A/E firms on separate IDIQ contracts to decide which firm was the most highly qualified to conduct Embassy Baghdad site utilization planning. However, OIG found no evidence that the Department followed this process during the design phase with

---

<sup>36</sup> (U) Public Law 92-582 (40 United States Code [U.S.C.] §§ 541-544) uses the term Architectural-Engineering, and FAR 36.6 uses the term Architect-Engineer.

<sup>37</sup> (U) Public Law 92-582 (40 U.S.C. § 541(3)(C)).

<sup>38</sup> (U) Public Law 92-582, § 903, “Requests for Data on Architectural and Engineering Services,” and Public Law 92-582, § 904, “Negotiation of Contracts for Architectural and Engineering Services.”

<sup>39</sup> (U) Ibid.

<sup>40</sup> (U) “Overseas Contracting and Simplified Acquisition Guidebook,” Chapter 8, page 22.

<sup>41</sup> (U) FAR 36.6, “Architect-Engineer Services.”

<sup>42</sup> (U) Department policy implementing this FAR requirement is located at OBO Policy P&PD DE 02: “Architectural/Engineering Contractor Selection.”

respect to selecting a firm to design the power plant. OIG requested documentation related to the selection of EYP as the most highly qualified A/E firm to complete the design of the new central power plant. In response, the Department provided OIG only with the selection memorandum for the original task order for the Embassy Baghdad site utilization planning. In the memorandum, the selection panel for the original task order deemed EYP “best qualified” to develop site utilization plans; however, OIG could not determine whether the panel evaluated EYP’s qualifications for completing a full design of a power plant.

(U) Had the Department treated the design services for a new central power plant as a new procurement, the process for selecting the most highly qualified A/E firms for design services would have been required. By not complying with public law, federal regulations, and Department requirements, the Department missed opportunities to select the most highly qualified A/E firm to design the new central power plant at a fair and reasonable price. OIG is therefore offering the following recommendation.

**Recommendation 5:** (U) OIG recommends that the Bureau of Administration, in coordination with the Bureau of Overseas Buildings Operations, issue a directive (1) emphasizing that the most highly qualified Architect/Engineering firm shall be selected, as required by public law, federal regulations, and Department of State requirements, and (2) underscoring accountability and identifying penalties for noncompliance.

**(U) Management Response:** The Bureau of Administration concurred with the recommendation, stating that the launch of the new DOSAM, as described in its response to Recommendation 1, shifted acquisition governance paradigm at the Department. As a result, the bureau requested that the recommendation be closed as implemented based on the release of the DOSAM.

**(U) OIG Reply:** On the basis of the Bureau of Administration’s stated concurrence, OIG considers the recommendation resolved, pending further action. The basis of this recommendation was OIG’s finding that the Department did not evaluate the credentials of several A/E firms on separate IDIQ contracts to decide which firm was the most highly qualified to design the Embassy Baghdad power plant. Thus, the intent of this recommendation was to ensure that the Department selects the most qualified firm when awarding an A/E contract, as required by *existing* public law, federal regulations, and Department requirements. In addition, OIG notes that the bureau’s actions in response to this recommendation should be coordinated with OBO and should underscore accountability and identify penalties for noncompliance.

(U) This recommendation will be closed when OIG receives documentation demonstrating that the Bureau of Administration, in coordination with OBO, has issued a directive that (1) emphasizes that the most highly qualified Architect/Engineering firm shall be selected, as required by public law, federal regulations, and Department of State requirements, and (2) underscores accountability and identifies penalties for noncompliance.

*(U) Lack of Owner's Project Requirements Caused Confusion*

(U) OBO did not develop the OPR for the new central power plant, causing confusion about the design and intended operation of the power plant, which persists today. The OPR is a written document that details the functional requirements of a project and the expectations of how it will be used and operated. According to industry standards,<sup>43</sup> the OPR forms the basis from which all design, construction, operations, and acceptances are made.<sup>44</sup> The OPR informs other design documents, such as the Basis of Design, which interprets the OPR and expands on its specifications.<sup>45</sup> The OPR and the Basis of Design should be updated throughout the project phases to reflect changes.

(U) OBO's Construction and Commissioning Guidebook from 2008 and the Generic Commissioning Plan from 2012, active during the new central power plant project, discussed the use of the OPR to establish project criteria; however, it was unclear if a singular OPR document was ever required. OIG found conflicting requirements as to what the Department required for the OPR. According to current OBO commissioning procedures,<sup>46</sup> OBO does not produce a traditional OPR document. Instead, OBO uses the project's scope of work and OBO standards in place of a project specific OPR. The OPR is traditionally a single document that explains the functional requirements of a project as well as how it will be operated. OBO officials also confirmed in an interview that OBO does not produce a traditional OPR document. OBO instead uses a project's scope of work and OBO standards in place of a project specific OPR. In an interview with OIG, an OBO official acknowledged that the current process exploits a "loophole."

(U) The lack of an OPR contributed to confusion regarding the design and intended operation of the power plant. Specifically, documentation reviewed by OIG presented different assumptions about the compound's projected electrical load and redundancy within the plant's power generation capacity. For example, the Basis of Design final submission indicates that the compound's maximum projected electrical load was 19.11 MW. However, in an interview with OIG, an EYP official who worked directly on the new central power plant specifically recalled that the estimated compound load was 15.6 MW. In addition, a memorandum dated October 8, 2018, from the commissioning agent to OBO, cited the compound's "peak demand load" as 12.6 MW. Moreover, in August 2015, EYP responded to a Request for Information from the construction contractor stating that the plant was designed for three generators on each side to

---

<sup>43</sup> (U) American Society of Heating, Refrigerating, and Air-Conditioning Engineers.

<sup>44</sup> (U) American Society of Heating, Refrigerating, and Air-Conditioning Engineers, "Draft Owner's Project Requirements," page 4 (January 3, 2019).

<sup>45</sup> (U) The Basis of Design is a document created by the design team that details the means, methods, and devices to be utilized to meet the Owner's Project Requirements. The intent of the Basis of Design is to give the owner, in this case the Department of State, a synopsis of the project design to ensure that it encompasses the owner's objectives.

<sup>46</sup> (U) Bureau of Overseas Buildings Operations, Standard Operating Procedure Commissioning: Construction Management SOP #01, page 6 (Issued November 12, 2021).

run at 75 percent capacity. This would yield 11.7 MW.<sup>47</sup> Additional correspondence from EYP in February 2016 noted that the generator plant design was based on the operation of six 2.6 MW generators (3 on each side), at 80 percent capacity, yielding 12.4MW total.<sup>48</sup> Finally, the “BEC Power Plant Study,”<sup>49</sup> conducted in 2022, measured the compound’s electrical load during its site survey and found that it varied from between 7.33 MW and 7.98 MW.

(~~SBU~~) Confusion regarding the compound’s maximum power needs was exacerbated when considering the level of generator redundancy<sup>50</sup> required. In the event of generator maintenance, unplanned power outages, or an attack partially disabling the plant, generator redundancy allows critical operations to continue. In an interview with OIG, an EYP official stated that the new power plant was intended to function with six generators running simultaneously, or three on each side, providing two redundant generators on each side of the plant. OBO officials corroborated EYP’s statement and further added that the plant’s two sides were each designed to independently support the compound’s electrical load if needed.

(b) (3) (A), (b) (5)

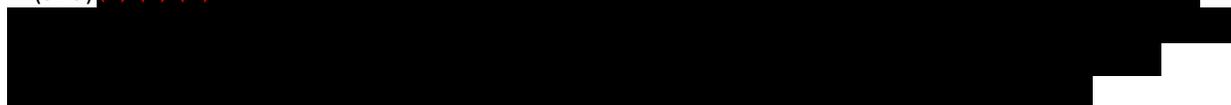


(U) Although OBO intended to design redundancy into the plant, existing power generation facilities that could have provided redundancy were decommissioned immediately after the new central power plant came online. The Basis of Design stated that the embassy would “retain the existing East End plant for back up and to provide redundancy,” which did not occur; the East End power plant was decommissioned in October 2018. In addition, the old power plant, the West End Powerplant, was also decommissioned in October 2018, despite recommendations from embassy and contractor officials to use the facility for backup until significant deficiencies with the new central power plant had been resolved.

(U) A clearly articulated OPR would have helped ensure that the compound’s power needs and redundancy requirements were understood and addressed throughout the power plant project. The lack of the OPR caused confusion regarding the requirements for power generation and redundancy of the power plant. As a result, OBO, embassy, and contractor officials were unable

---

<sup>47</sup> (~~SBU~~) (b) (3) (A)



Additional correspondence from EYP stated that the generators used in the new central power plant have a power generation capacity of 2.6 MW each if they function at 100 percent. Thus, three generators on each of the two sides of the power plant running at 75 percent capacity generate a total of 11.7 MW of power.

<sup>48</sup> (U) Baghdad Power Plant and Infrastructure Project Memorandum, “Issues Raised by BEC Facility Manager,” February 3, 2016.

<sup>49</sup> (U) The Miller Hull Partnership LLP, and Mason and Hanger Inc., “BEC Power Plant Study, Draft Final Report, Baghdad, Iraq,” page 6 (September 6, 2022).

<sup>50</sup> (U) Redundancy is the duplication of critical components of a system with the intention of increasing reliability of the system.

to articulate how the plant should have been designed to operate, thereby causing confusion regarding design, construction, commissioning, and operations. OIG is therefore offering the following recommendation.

**Recommendation 6:** (U) OIG recommends that the Bureau of Overseas Buildings Operations develop, implement, and communicate a requirement to complete an Owner's Project Requirements document that details the functional requirements of a project and the expectations of how it will be used and operated.

**(U) Management Response:** OBO did not concur with the recommendation, stating that it does not issue a single traditional OPR document, and contended that doing so would be a redundant effort since it "already has several processes, standards and programs that create and maintain the information and elements contained in a typical OPR document." OBO further noted that there were references to the OPR, as a singular document, in Division 1 and commissioning contracts due to previous attempts to align with industry practice but stated that industry practice does not meet OBO's ongoing program and functional operations and that OBO is working to remove or update these references in all documentation. OBO offered to communicate and include in Commissioning Agent training where to locate the various components of the OPR content.

**(U) OIG Reply:** On the basis of OBO's nonconcurrence with the recommendation, OIG considers this recommendation unresolved. OIG acknowledges that OBO's existing guidance intends for a combination of documents to function as a traditional OPR; however, in the case of the new central power plant, this approach created significant confusion regarding the design and intended operation of the plant. OIG agrees that additional training would help direct contractors to key project documentation, but it would not address the recommendation, which aims to streamline OBO's process and clarify functional requirements of OBO projects.

(U) This recommendation will be considered resolved when OBO provides a plan of action for addressing the recommendation or provides an acceptable alternative that fulfills the intent of the recommendation. This recommendation will be closed when OIG receives documentation demonstrating that OBO has developed, implemented, and communicated a requirement to complete an OPR document that details the functional requirements of a project and the expectations of how it will be used and operated.

*(U) OBO Did Not Comply With Department Policy Regarding the Integrated Design Review Process*

(U) OIG found that OBO did not comply with Department policy regarding the Integrated Design Review (IDR) process. The scope of work for the new central power plant<sup>51</sup> required EYP to make interim design submissions that included design drawings and construction contract specifications at the 30 percent, 65 percent, 90 percent, and 100 percent design completion

---

<sup>51</sup> (U) Scope of work for task order SAQMMA09F4048, modification M009.

milestones. OBO completes IDRs to identify key design issues and resolve them in a timely manner, thereby minimizing the impact of critical issues on the cost and delivery of a project. Through the IDR process, OBO “review[s] designs submitted by contracted [A/E] firms for compliance with OBO Design Standards . . . and the terms of the contract.”<sup>52</sup> OBO also records comments on components of the IDR, including “designs, construction documents, reports, studies, and other technical information” provided by the contractor.<sup>53</sup> OBO reviewers are responsible for reviewing the design within the confines of their technical expertise.<sup>54</sup> As a compliance review, comments focus primarily on technical requirements derived from the contract requirements, document control, and compliance with the security classification.<sup>55</sup>

(U) However, OBO did not always provide comments for each technical discipline as part of the IDR process and could not provide documentation demonstrating that the 90 percent IDR had been completed. Specifically, OIG found that EYP submitted the required design reviews to meet three of the four design milestones, but OBO could not provide any documentation confirming whether EYP had submitted a design at the 90 percent completion milestone and, if so, whether reviewers commented on the design as required by Department policy. In addition, OBO did not provide justification for why this submission and review were missing or were not completed. Without documentation of the 90 percent submission and related review, the Department lacked assurance that its review process functioned as intended to identify and resolve design deficiencies.

(U) Furthermore, OBO did not review or did not provide comments on design submissions for all technical disciplines. For example, reviewers from the structural discipline provided no comments for any of EYP’s IDR submissions, and reviewers from the mechanical discipline did not provide comments for the 35 percent and 100 percent IDRs, despite a power plant being a highly technical mechanical facility. Table 3 shows the number of the IDR comments OBO provided for each technical discipline at the 35 percent, 65 percent, 90 percent, and 100 percent design milestones.

---

<sup>52</sup> (U) Bureau of Overseas Buildings Operations, Design PD 03: Integrated Design Review (IDR), page 1 (Issued June 5, 1987, Current Revision May 22, 2017).

<sup>53</sup> (U) Bureau of Overseas Buildings Operations, Design SOP 01: Integrated Design Review (IDR), page 4 (February 7, 2019).

<sup>54</sup> (U) *Ibid.*, page 13.

<sup>55</sup> (U) *Ibid.*, page 4.

**(U) Table 3: Summary of Integrated Design Review Comments**

<b>(U) Technical</b>					<b>(U) Integrated Design Review Comments</b>				
<b>Discipline</b>	<b>35 Percent<sup>a</sup></b>	<b>65 Percent<sup>b</sup></b>	<b>90 Percent<sup>c</sup></b>	<b>100 Percent<sup>d</sup></b>					
Architectural	10	12	-	15					
Civil	0	6	-	1 <sup>e</sup>					
Cost Engineering	0	0	-	1 <sup>e</sup>					
Electrical	31	10	-	5					
Environmental	5	1	-	5					
Fire Protection	0	29	-	10					
Geotechnical	1	11	-	5					
Life Safety	4	8	-	6					
Mechanical	0	12	-	0					
Plumbing	0	4	-	0					
Structural	0	0	-	0					
Technical Security	1	0	-	0					
Telecom	0	16	-	0					
<b>Total Comments</b>	<b>52</b>	<b>109</b>	<b>-</b>	<b>48</b>					

<sup>a</sup> (U) OBO staff provided 35 percent design review comments from March 7, 2012, to April 5, 2012. The IDR documentation indicated this was a 35 percent review.

<sup>b</sup> (U) OBO staff provided 65 percent design review comments from June 8, 2012, to June 18, 2012. One review was submitted in August 2012.

<sup>c</sup> (U) OBO did not provide any documentation related to the 90 percent design review.

<sup>d</sup> (U) OBO staff provided 100 percent design review comments from July 20, 2012, to September 12, 2012.

<sup>e</sup> (U) Civil and Cost Engineering comment indicated no comments.

**(U) Source:** OIG generated based on analysis of the Independent Design Reviews.

(U) Had OBO complied with its IDR process, the design deficiencies related to the air flow volume and direction in the generator rooms that were subsequently identified would have been reviewed by the mechanical discipline. However, the only comments raised regarding airflow concerned filtration to protect air handling units from Baghdad’s dust and pollution. None of the reviewers identified air flow deficiencies in the generator rooms during the IDR process. As a result, the Department missed opportunities to correct design deficiencies early in the project, specifically, the inadequate air flow, which later caused overheating in the power plant. OIG is therefore offering the following recommendation.

**Recommendation 7:** (U) OIG recommends that the Bureau of Overseas Buildings Operations develop, implement, and communicate a process that ensures that reviews for all technical disciplines are completed and documented at all interim design submissions.

**(U) Management Response:** OBO concurred with the recommendation, stating that it will update its Standard Operating Procedures to ensure that reviews for all technical

disciplines are completed and documented at all interim design submissions to include who will participate in reviews and documentation of the participation of all subject matter experts.

**(U) OIG Reply:** On the basis of OBO's stated concurrence and planned actions, OIG considers the recommendation resolved, pending further action. This recommendation will be closed when OIG receives documentation demonstrating that OBO has developed, implemented, and communicated a process that ensures that reviews for all technical disciplines are completed and documented at all interim design submissions.

*(U) Significant Changes to the Design Were Not Fully Documented*

(U) OIG also found that significant changes to the design of the new central power plant were not fully documented. The Basis of Design is a document created by the design team that details the means, methods, and devices to be utilized to meet the OPR. The intent of the Basis of Design is to give the owner, in this case the Department, a synopsis of the project design to ensure that it encompasses the owner's objectives.<sup>56</sup> According to RMF, the company employing the commissioning agent, "the basis of design was supposed to be updated as the project was [ongoing]. It's supposed to be a living . . . document that evolves."

(U) The commissioning report stated that RMF could not locate an updated Basis of Design and noted that the original Basis of Design did not account for later design changes. EYP submitted the Basis of Design for the 100 percent design milestone on July 13, 2012. On September 30, 2012, the Department awarded the construction contract for the central power plant. On May 2, 2013, and August 9, 2013, the Department issued statements of work that requested significant design changes to the new central power plant. The original Basis of Design submitted by EYP included narrative and the designer's calculations in appendices; however, the Basis of Design should also have documented the design changes. In addition, OBO could not provide an updated Basis of Design for OIG's review despite repeated requests. OIG also could find no documentation explaining why these significant changes were made to the original power plant design. OBO and embassy officials also could not definitively recall why OBO had ordered the changes to the original design. As a result, it is not clear if EYP or OBO fully evaluated how these changes would affect the overall power plant design. Without knowing the effects of changes to the design of the power plant, the Department had no assurance that the power plant would function properly. OIG is therefore offering the following recommendation.

**Recommendation 8:** (U) OIG recommends that the Bureau of Overseas Buildings Operations develop, implement, and communicate a process to (1) document a description of the design change, the necessity of the design change, the potential cost impact, the potential schedule impact, and management approvals when Department of State-initiated design changes require modification to the design contract and (2) ensure the Basis of Design includes all design changes.

---

<sup>56</sup> (U) Department of the Army, U.S. Army Corps of Engineers, Engineering and Design Total Building Commissioning Procedures, pages 13 and 25 (March 31, 2017).

**(U) Management Response:** OBO concurred with the recommendation, stating that it developed a project-specific Decision and Deviation Matrix requirement for all project development task orders to record agreements between the contractor and OBO relative to project-specific decisions and deviations involving OBO requirements, local municipality or host government influences, existing conditions, or project-specific security related interpretations. OBO also stated it will “review and update any appropriate SOPs as needed to ensure documentation and approvals are recorded in official project records.”

**(U) OIG Reply:** On the basis of OBO’s stated concurrence, OIG considers the recommendation resolved, pending further action. While the project-specific Decision and Deviation Matrix requirement OBO referenced in its response is beneficial, it alone does not address the full intent of the recommendation. This recommendation will be closed when OIG receives documentation demonstrating that OBO has developed, implemented, and communicated a process to (1) document a description of the design change, the necessity of the design change, the potential cost impact, the potential schedule impact, and management approvals when Department of State-initiated design changes require modification to the design contract and (2) ensure the Basis of Design includes all design changes.

***(U) The Department Missed Opportunities To Correct Design Deficiencies Identified During the Construction of the New Central Power Plant***

(U) In general, DLG 77 constructed the new central power plant in accordance with the FAR<sup>57</sup> and the construction contract,<sup>58</sup> as well as the design provided by EYP. However, the Department missed opportunities to correct design deficiencies identified during the construction phase. As a result, the project was constructed with those design deficiencies, and those deficiencies became liabilities once the project was completed.

(U) Construction of the new central power plant was delayed or suspended<sup>59</sup> several times because of a bid protest, requests for delay by the embassy, and an evacuation due to the security threat posed by the Islamic State of Iraq and the Levant. The Department awarded construction contract SAQMMA12C0283 for “Baghdad Power Plant, Life Safety and Infrastructure Upgrades” on September 30, 2012, to DLG 77, with an initial project duration of 30-months. However, because of the delays, construction of the power plant was not completed until October 3, 2018, more than 2 years after the intended completion date of May 17, 2016.

---

<sup>57</sup> (U) FAR 36.101, “Applicability.”

<sup>58</sup> (U) Contract SAQMMA12C0283, E.5.2.2.1 (September 30, 2012) states, “The contractor developed and OBO accepted design shall be the guide and direction for construction operations and execution.”

<sup>59</sup> (U) FAR 52.242-14, “Suspension of Work,” permits “the Contracting Officer to order the contractor, in writing, to suspend, delay, or interrupt all or any part of the work of this contract for the period of time that the Contracting Officer determines is appropriate for the convenience of the Government.”

*(U) The Contractor Constructed the Power Plant to Design*

(U) According to OBO officials, despite the significant delays to construction, DLG 77 generally constructed the new central power plant in accordance with EYP's design. The FAR states that the design includes construction requirements, including technical specifications,<sup>60</sup> which are prepared by the A/E firm.<sup>61</sup> The construction contract also required that DLG 77 construct the new central power plant in accordance with the design EYP developed and OBO accepted. Specifically, the construction contract stated that the contractor shall "provide construction services without limitation for the full construction of the new power plant as described in the [design]."<sup>62</sup>

(U) OIG reviewed construction and commissioning documents and met with officials from OBO, AQM, the construction contractor, the commissioning agent, and contractor personnel involved with the construction and commissioning of the plant. By all accounts, the construction company delivered a power plant that generally complied with the design. In reference to each subcomponent of the completed new central power plant, even those subcomponents with serious design deficiencies, the commissioning report stated that the systems were "in accordance with project design requirements."

*(U) OBO Missed Opportunities To Correct Design Deficiencies Identified During the Construction Phase*

(U) OBO missed opportunities to correct design deficiencies identified during the construction phase when design concerns were raised by the construction contractor and facilities officials. Construction contractors can submit Requests for Information (RFI) through ProjNet and receive written responses from OBO.<sup>63</sup> RFIs are written requests from the construction contractor to the contracting entity and the design firm that seek clarification of plans, drawings, specifications, and other documents.<sup>64</sup>

~~(SBU)~~ During the construction phase of the new central power plant, there were opportunities for project stakeholders to raise concerns to OBO. OIG reviewed documentation and found two instances in which concerns were raised about the power plant's airflow. (b) (3) (A), (b) (5)

---

<sup>60</sup> (U) Ibid.

<sup>61</sup> (U) FAR 36.601-4(a)(1), "Implementation."

<sup>62</sup> (U) Contract SAQMMA12C0283, Section C, page 2/9.

<sup>63</sup> (U) Bureau of Overseas Buildings Operations, Construction & Commissioning Guidebook, pages 179-180 (July 31, 2008).

<sup>64</sup> (U) Ibid., page 179.

(b) (3) (A), (b) (5)

65

(b) (3) (A), (b) (5)

<sup>66</sup> Thus EYP concluded that the ventilation provided in the design met the plant's air flow needs. OBO provided a response that reiterated EYP's statement.

(U) Similarly, on February 3, 2016, EYP responded to concerns raised by an embassy facilities official in a memorandum submitted to EYP by way of OBO. The official questioned the power plant's ability to operate in peak season conditions<sup>67</sup> and whether the airflow was adequate to remove excess heat. Specific concerns cited in the memorandum included whether there was sufficient cooling capacity for the plant if more than three generators per side were to run at the same time, especially during the hottest months in Baghdad, and that the ventilation in the generator rooms was inadequate. The official also mentioned that the cooling apparatus in place was not effective during certain types of weather; the placement of evaporative cooling units on the roof where the heat from the sun was high may not be effective; the plant lacked machinery capable of moving the generators when they would inevitably need maintenance or repair; and the generator exhaust tubes were not positioned appropriately. EYP's responses reiterated the logic of the original design and dismissed the embassy officials' concerns regarding a lack of sufficient airflow. Specifically, in response to concerns that more than three generators may need to operate simultaneously, especially during hot summer months, EYP restated its mathematical calculations, although the loading differed slightly from the loading cited in RFI 204.<sup>68</sup> In addition, EYP acknowledged that if more than three generators were needed at a time, "portable supplemental cooling may be required." Furthermore, regarding concerns about ventilation in the generator rooms, EYP dismissed concerns about the direction and volume of air flow, responding that the design ensured "an appropriate level of cooling and heat removal." The response also noted that positive pressure was intentional in the design, stating that "the design provides a positive pressure within the room and is intended to resist migration of airborne dust and dirt from entering the space." OBO did not provide OIG documentation indicating that it had responded to this memorandum or that any action was taken in response to embassy concerns.

(U) In addition, OIG interviewed contractor personnel who worked at the embassy during the power plant's construction. The contractors stated that as the power plant was constructed,

---

<sup>65</sup> (SBU) (b) (3) (A), (b) (5)

However, the design included two roof top units per side of the power plant, each of which supplied 42,500 CFM, for a total of only 85,000 CFM.

<sup>66</sup> (SBU) (b) (3) (A), (b) (5)

<sup>67</sup> (U) "Peak season" refers to the hottest months of the year in Baghdad, including the summer months.

<sup>68</sup> (SBU) (b) (3) (A)

they had concerns about the design and airflow, which they shared with OBO but which, to their knowledge, were never addressed.

(U) RFI 204 and the memorandum from facilities management both raised significant concerns about the power plant's design that could have been addressed during construction. However, OBO provided short responses dismissing their concerns and did not make any adjustments to the design of the power plant. Contractor personnel told OIG that OBO indicated that it did not want to slow down the movement of the project to address design concerns. Rather, they wanted to push to completion and address any problems after the project was finished. However, OBO's process is intended to solicit stakeholder concerns so that they can be addressed at each stage of the project. By ignoring concerns about the design of the plant during its construction, OBO missed an opportunity to address concerns that instead became liabilities once the project was completed and significant alterations to the new central power plant became more difficult and costly to make. OIG is therefore offering the following recommendation.

**Recommendation 9:** (U) OIG recommends that the Bureau of Overseas Buildings Operations develop, implement, and communicate a process requiring it to address significant design deficiencies in facilities when deficiencies are identified during construction rather than after the facilities have been constructed.

**(U) Management Response:** OBO concurred with the recommendation, stating that it will review and reinforce its process for addressing design deficiencies during construction. OBO further stated that in cases where it makes a Risk Management decision to defer corrective action, it will modify its processes to ensure appropriate documentation, approvals, and follow-up on subsequent corrective action.

**(U) OIG Reply:** On the basis of OBO's stated concurrence and planned actions, OIG considers the recommendation resolved, pending further action. This recommendation will be closed when OIG receives documentation demonstrating that OBO has developed, implemented, and communicated a process requiring it to address significant design deficiencies in facilities when deficiencies are identified during construction rather than after the facilities have been constructed.

***(U) The Department Did Not Always Follow Department Requirements and Guidelines for the Commissioning of the New Central Power Plant at Embassy Baghdad***

(U) With respect to the commissioning phase, OBO did not adhere to Department requirements and guidelines for the commissioning process. Specifically, OBO began the commissioning process later than required by Department policy. Subsequently, the commissioning plan was developed late. In addition, OBO concluded the commissioning process without resolving outstanding concerns regarding inadequate ventilation and airflow and ignored results of power plant performance testing and recommendations to conduct further testing. As a result, OBO missed opportunities to ensure that the power plant met intended performance goals and to resolve persistent adverse issues before the power plant came online.

*(U) OBO Began the Commissioning Process Late, Missing Opportunities To Identify Deficiencies*

(U) Commissioning is the process by which the Department verifies and documents that building systems “perform according to the design intent, are operationally efficient, maintainable and sustainable, and meet safety and security requirements.”<sup>69</sup> Commissioning activities generally begin before the design phase and continue throughout construction until after a facility is turned over to post.<sup>70</sup> Furthermore, OBO guidance<sup>71</sup> states that the commissioning agent will provide input during the project design review process. The commissioning agent is the “U.S. Government representative for Commissioning who reports to the Project Director/Contracting Officer’s Representative.”<sup>72</sup> The commissioning agent serves in a key role, providing advice, oversight, monitoring, coordination, and assistance for integration of all commissioning activities executed by the general contractor.<sup>73</sup> OBO guidance states that during design,<sup>74</sup> the commissioning agent will prepare the project-specific commissioning plan and provide input during the project design review process.<sup>75</sup> The project-specific commissioning plan adapts OBO’s generic commissioning plan, defining commissioning tasks to document the testing and performance of building systems.<sup>76</sup>

(U) OBO began the commissioning process late. In December 2013, AQM modified an existing task order with RMF adding commissioning services for the new power plant project. This action occurred 26 months after the design phase started and 14 months after the construction phase began. As a result, RMF developed the project-specific commissioning plan after the design phase. RMF provided the commissioning plan for the power plant project to OBO on October 8, 2015, 4 years after the Department awarded the project design contract and 3 years after awarding the construction contract. Figure 2 shows the expected dates versus the actual dates of the commissioning milestones.

---

<sup>69</sup> (U) OBO CM SOP #1, page 1.

<sup>70</sup> (U) OBO CM SOP #1, page 5.

<sup>71</sup> (U) OBO CM SOP #1, page 6.

<sup>72</sup> (U) Bureau of Overseas Buildings Operations, Construction and Commissioning Guidebook, page 205 (July 31, 2008).

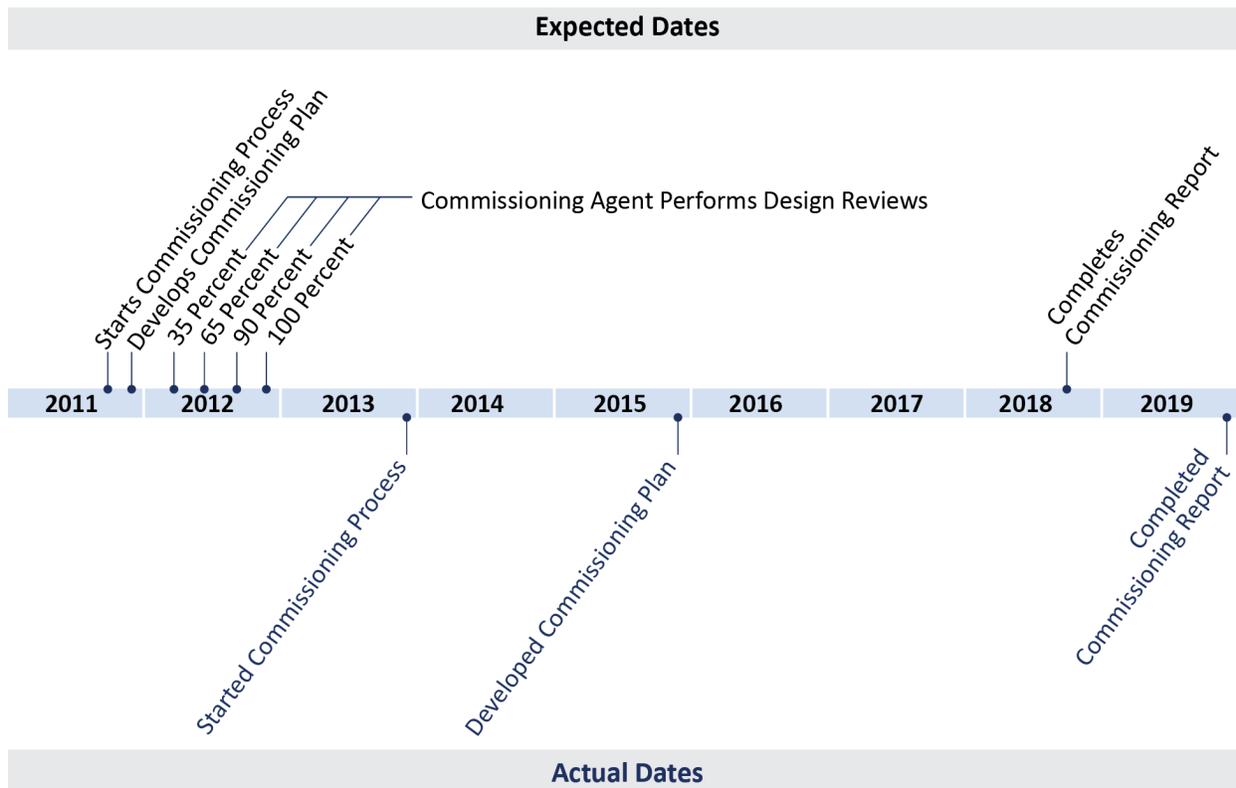
<sup>73</sup> (U) OBO CM SOP #1, page 3.

<sup>74</sup> (U) OBO CM SOP #1, page 6.

<sup>75</sup> (U) In addition, the construction contractor must prepare and submit a detailed commissioning execution plan that outlines all the components of the construction project.

<sup>76</sup> (U) OBO CM SOP #1, page 3.

**(U) Figure 2: Commissioning Milestones: Expected Dates Versus Actual Dates**



**(U) Note:** Design reviews were never completed by commissioning agent.

**(U) Source:** Generated by OIG from Department policies as well as contract documentation and reporting involving Embassy Baghdad new central power plant.

(U) One OBO official stated that the requirement to begin commissioning before the design phase was not in place when the power plant project was initiated. Others did not provide reasons why commissioning began late. However, OIG reviewed an OBO guidebook from 2008, before the power plant project had started, which noted that commissioning commences early in project design. Specifically, the Construction and Commissioning Guidebook from 2008 stated, "Commissioning is an overarching coordination and quality assurance activity that commences early in project design and continues through construction, systems startup and testing, and project turnover and close-out."<sup>77</sup>

(U) OIG found that delaying the commissioning process for the power plant project could have resulted in missed opportunities to adequately plan for commissioning and identify and correct deficiencies earlier in the project. RMF did not have the opportunity to perform commissioning activities during the design phase or the first year of construction. As a result, the Department did not receive the benefit of its representative identifying deficiencies during the design phase and missed another opportunity to identify design deficiencies, including the key design deficiency of insufficient airflow to remove heat from the power plant.

<sup>77</sup> (U) OBO, Construction and Commissioning Guidebook, page 83 (July 31, 2008).

(SBU) The commissioning agent should provide input during the project design review process. However, RMF was not contracted until after the design reviews concluded, and thus RMF could not provide input. (b) (5)

<sup>78</sup> After the design reviews had concluded and RMF was contracted, RMF identified deficiencies with the power plant's design. Specifically, RMF identified design deficiencies regarding the required volume and direction of air flow to the generator room. Had OBO involved RMF in the power plant project when Department policy required, the commissioning agent could have identified issues with the airflow in the design phase rather than late in the construction phase, thereby correcting issues sooner and at lesser cost. OIG is therefore offering the following recommendation.

**Recommendation 10:** (U) OIG recommends that the Bureau of Overseas Buildings Operations issue a directive (1) emphasizing Department of State policy that the commissioning process begins before the design phase and that the process continues until the expiration of the 1-year warranty period of the operations and maintenance phase and (2) underscoring accountability and identifying penalties for noncompliance.

**(U) Management Response:** OBO did not concur with the recommendation and proposed that OIG modify the recommendation to specify that it applied only to capital projects and to emphasize that "planning for commissioning begins in the design phase" rather than commissioning beginning "before the design phase."

**(U) OIG Reply:** On the basis of OBO's nonconurrence with the recommendation, OIG considers this recommendation unresolved. OIG believes that adding language stating that the recommendation only applies to capital projects would potentially exclude major rehabilitation projects, thereby limiting the intent of this recommendation. OIG also disagrees that starting commissioning activities "before the design phase" is interchangeable with "planning for commissioning in the design phase." Furthermore, OBO guidance on this topic states that commissioning activities begin before the design phase. As such, OIG did not modify the recommendation as requested.

(U) This recommendation will be considered resolved when OBO provides a plan of action for addressing the recommendation or provides an acceptable alternative that fulfills the intent of the recommendation. This recommendation will be closed when OIG receives documentation demonstrating that OBO issued a directive that (1) emphasizes Department of State policy that the commissioning process begins before the design phase and that the process continues until the expiration of the 1-year warranty period of the operations and maintenance phase and (2) underscores accountability and identifies penalties for noncompliance.

---

<sup>78</sup> (U) RMF Engineering, Inc., Commissioning Report: New Power Plant United States Embassy Compound Baghdad, Iraq, page 11 (December 2019).

*(U) OBO Disregarded Recommendations From the Commissioning Agent*

(U) OBO concluded the commissioning process without addressing the results of power plant performance testing and responding to recommendations to conduct further testing, including testing during peak season. OBO policy states, “The Commissioning Process provides the U.S. government with a high level of confidence that . . . the building systems and assemblies have been planned, designed, procured, installed, tested, and adjusted in the prescribed manner to meet the design intent and specified performance.”<sup>79</sup> The information the commissioning agent provided to OBO, described in the paragraphs that follow, identified issues indicating that the newly constructed power plant did not “meet the design intent or the specified performance.”

(SBU) On September 22, 2018, RMF conducted performance testing to determine whether the ventilation and air-conditioning systems could maintain proper temperatures in the power plant during operations. (b) (3) (A), (b) (5)

80 (b) (3) (A), (b) (5)

81 (b) (3) (A), (b) (5)

(U) OBO did not respond to the findings regarding the September 22, 2018, testing. Per the commissioning plan, OBO was supposed to review and comment on the functional performance testing within three days of the testing. OIG found no documentation that OBO had responded to the September 22 functional performance tests, including the required reviews and comments. OBO issued substantial completion of the new power plant on October 3, 2018.

(U) RMF also raised concerns about the findings of this functional performance test to OBO in a memorandum dated October 8, 2018. In this memorandum, the commissioning agent informed OBO that the power plant was not functioning as designed with two generators operating at low capacity for two hours and recommended further testing. The commissioning agent also

---

<sup>79</sup> (U) Bureau of Overseas Buildings Operations, PD #01: Construction Management, Policy Directive for Commissioning and Transition to Occupancy of Overseas Facilities, page 8 (Issued November 23, 2021).

<sup>80</sup> (U) These test parameters were still below the expected operating capacity of the plant as the commissioning agent summarized: “It is expected that generators will be controlled by operators to a load of 75-80 percent capacity, as it is not normal to operate them up to full capacity unless needed. With a peak demand load of 12.6 MW, six generators (three on each side) will be needed to run at 80 percent to meet the peak demand during peak summer outside air temperatures.”

<sup>81</sup> (SBU) (b) (3) (A), (b) (5)

(b) (3) (A)

explained that the power plant at full capacity would require six generators operating at 80 percent capacity (12.6 MW) continuously. There is no record that OBO considered the associated risks described in the RMF memorandum.

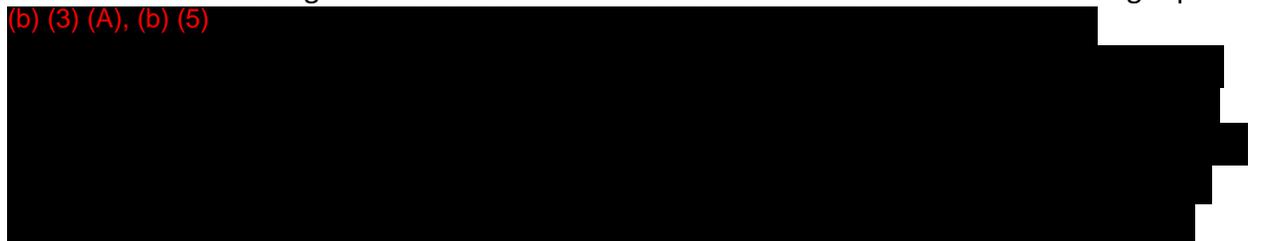
(U) In addition to ignoring negative findings from regular performance testing, OBO disregarded RMF's recommendation that the system should be tested during peak season when temperatures in Iraq are at their highest. The October 8, 2018, memorandum from RMF to OBO explained that the outside air temperatures during testing were well below the peak design conditions of 50°C, yet the temperature in certain areas of the generator rooms already exceeded the maximum design room temperature. RMF's memorandum stated that "further testing during peak summer conditions with the plant under normal operations will need to be performed to validate the ultimate performance of the ventilation system." OBO did not respond to RMF's recommendation for testing during peak season.

(U) Because OBO did not authorize testing during peak summer conditions in the summer of 2019, RMF's final commissioning report, issued in December 2019, reiterated its recommendation for testing during peak summer conditions. Nonetheless, according to RMF, OBO did not approve RMF's return to site, and the recommended testing during peak summer conditions never occurred. Moreover, RMF never received a response from OBO regarding the recommended testing during peak summer conditions in the October 8, 2018, memorandum or in the final commissioning report. In addition, there is no record that OBO considered the risks associated with not complying with the commissioning agent's recommendation.

(U) OIG asked OBO if the testing during peak summer conditions. In a later email, OBO responded that "the functional performance testing was done at near-peak summer conditions. At that time, it was determined that the cooling equipment could not meet all design requirements because of the issues noted at near-peak ambient conditions. Therefore, there was no need to test at full peak." The response from OBO indicated an acknowledgement of the cited power plant deficiencies. Nevertheless, OBO issued substantial completion for the power plant building in October 2018 with the known deficiencies unaddressed.

(~~SBU~~) In addition to ignoring recommendations regarding testing of the power plant, OBO failed to address several design deficiencies that RMF had identified in its final commissioning report.

(b) (3) (A), (b) (5)



(b) (3) (A), (b) (5) <sup>82</sup> (b) (5)  
<sup>83</sup>

(SBU) (b) (5)

(U) OBO did not respond to the recommendations from RMF’s final commissioning report. OBO may have considered the risks of accepting the new central power plant with known deficiencies; however, OBO could not provide documentation demonstrating consideration and evaluation of the risks for accepting the new central power plant with the known deficiencies or a comprehensive plan to mitigate those risks. In the absence of a plan to correct the deficiencies that RMF identified, or mitigate risks from those deficiencies, the Department missed another opportunity to address known power plant deficiencies that have now become liabilities for the embassy. OIG is therefore offering the following recommendations.

**Recommendation 11:** (U) OIG recommends that the Bureau of Overseas Buildings Operations (OBO) develop, implement, and communicate a process requiring responsible OBO officials to document specific and detailed reasons and associated risks, proportional to the level of specificity and detail in the commissioning testing results, if OBO disagrees with commissioning testing results.

**(U) Management Response:** OBO concurred with the recommendation, stating that it intends to review and reinforce the process for instances when OBO disagrees with the commissioning testing results. OBO stated that the revised process would include documenting specific and detailed reasons and associated risks, proportional to the level of specificity and detail in the commissioning testing results.

**(U) OIG Reply:** On the basis of OBO’s stated concurrence and planned actions, OIG considers the recommendation resolved, pending further action. This recommendation will be closed when OIG receives documentation demonstrating that OBO has developed, implemented, and communicated a process requiring responsible OBO officials to document specific and detailed reasons and associated risks, proportional to the level of specificity and detail in the commissioning testing results, when OBO disagrees with commissioning testing results.

**Recommendation 12:** (U) OIG recommends that the Bureau of Overseas Buildings Operations (OBO) develop, implement, and communicate processes requiring

---

<sup>82</sup> (U) Commissioning Report, page 14.

<sup>83</sup> (U) Ibid., page 22.

responsible OBO officials to document specific and detailed reasons, proportional to the level of specificity detailed in the commissioning reports, if OBO disagrees with commissioning report recommendations. This process must include, at a minimum, written documentation of an assessment of the risks associated with dismissing commissioning report recommendations, a comprehensive plan to mitigate those risks, and management's approval of these actions.

**(U) Management Response:** OBO concurred with the recommendation, stating that it intends to review current training requirements, including training improvements that occurred since, and as a result of, the power plant project, and determine if additional improvements are needed. OBO further stated that it would consider improvements to how Project Directors and Contracting Officers' Representatives consider input from other subject matter experts before making decisions on contract compliance, as well as improved documentation of those decisions.

**(U) OIG Reply:** On the basis of OBO's stated concurrence and planned actions, OIG considers the recommendation resolved, pending further action. OIG notes, however, that the intent of the recommendation was for OBO to develop a process that ensures it addresses negative findings in commissioning reports. The recommendation can be closed when OIG receives and accepts documentation demonstrating that OBO has developed, implemented, and communicated processes requiring responsible OBO officials to document specific and detailed reasons, proportional to the level of specificity detailed in the commissioning reports, if OBO disagrees with commissioning report recommendations. This process must include, at a minimum, written documentation of an assessment of the risks associated with dismissing commissioning report recommendations, a comprehensive plan to mitigate those risks, and management's approval of these actions.

***(U) Expedited Project Completion Led to Power Plant Performance Problems and Unnecessary Costs and Risk***

(U) OBO officials and facilities contractor personnel acknowledged that OBO and AQM did not always follow established federal and Department requirements when executing the new central power plant project primarily due to the desire to expedite completion of the project. More specifically, OBO officials told OIG that at the time the new central power plant was under construction, they felt that the project needed to be completed as soon as possible because of the security and life support needs at a critical threat post such as Embassy Baghdad. However, some facilities contractor personnel noted that advancing a project without having corrected identified deficiencies does not ensure the security and life support needs of the embassy. Regardless of the underlying reason why the deficiencies went unaddressed, the Department ultimately missed opportunities at each project phase to address known deficiencies that have now become liabilities. As a result, persistent performance problems with the central power plant have required the Department to incur significant costs attempting to mitigate the problems and provide reliable power.

(SBU) (b) (7)(F), (b) (3) (A)

<sup>84</sup> (b) (7)(F), (b) (3) (A)

According to facilities contractor personnel, each time, the cost of maintenance was more than \$200,000. Furthermore, two times in the 4 years that the power plant has been online, June 2019 and May 2023, there have been catastrophic failures of the generators with significant explosions that could have injured or killed anyone who had been near them at the time of the incidents, such as from metal parts and hot oil exploding from the generators. According to the contractors, the catastrophic failures required full replacement of these generators' engines at a cost of more than \$500,000 per unit.

(U) Facilities contractor personnel also noted that the generators face increased stress and strain and require more maintenance generally and will have shorter life spans. In fact, some contractors noted that these types of catastrophic failures of generators are rare in the industry and that in their long careers working with power plants, these were the only times that they had seen such incidents. Figure 3 shows the explosion of Generator 8's engine at the central power plant on June 26, 2019.

### **(U) Figure 3: Explosion of Generator 8's Engine**



(U) Source: Embassy Baghdad Facilities Management Office.

(U) In May 2023, the engine of Generator 10 exploded in a fashion similar to how Generator 8's engine exploded 4 years earlier. Figure 4 shows damage caused by the explosion of Generator 10 at the central power plant on May 27, 2023.

---

<sup>84</sup> (SBU) (b) (7)(F), (b)(3)(A)

although documentation for those specific outages was unavailable.

**(U) Figure 4: Damage to Generator 10 from Engine Explosion**

(b) (3) (A)



**(U) Source:** Embassy Baghdad Facilities Management Office.

(U) Furthermore, mitigation measures taken since the power plant came online in 2018, while needed, have been and will continue to be costly. As previously noted, the Department and the embassy installed large air conditioning blowers outside the power plant to blow cold air into the generator rooms. In addition, after construction, OBO realized that the exhaust piping was so heavy that they had to construct scaffolding to support it. Portable evaporative coolers (also known as “swamp coolers”) and fans were placed directly next to the generators to help cool the generators and provide additional air flow. Stand-alone generators were procured and placed around the compound to assist the power plant in meeting the electrical demand of the embassy, especially during peak season. After all the above costly measures described, the plant still could not provide sufficient reliable power.

(U) In June 2022, the Department incurred additional expenses when it contracted with the Miller Hull Partnership, LLP, and Mason and Hanger, Inc. to conduct the “BEC Power Plant Study” of the central power plant to identify deficiencies and offer recommendations for corrective measures and to ensure the power plant’s continued function, improve its performance, and extend its useful life. The contract and modifications cost \$3.6 million in total. In addition, the technical study report presented findings similar to those raised over the course of the power plant project, including the lack of sufficient airflow and ventilation. The report also made recommendations for additional work to address the plant’s deficiencies, including significantly increasing airflow volume and reversing airflow direction to meet manufacturer standards. The costs for this additional work were not yet known.

(SBU) (b) (3) (A), (b) (7)(F)



Specifically, persistent performance problems with the central power plant have required the Department to incur significant costs in attempting to mitigate the problems and provide reliable service. In addition, OIG observed two unplanned power outages in 2023. (b) (3) (A), (b)(7)(F)



(b) (3) (A), (b)(7)(F)



(U) If the Department takes additional measures, such as those recommended by the Miller Hull Partnership, LLP, and Mason and Hanger, Inc.'s study, the power plant's performance could improve, and the embassy could have greater assurance as to the plant's sufficiency and reliability. In addition, it is important to note that OBO has similar ongoing and planned power plant construction at other overseas posts, including at U.S. Consulate General Erbil, Iraq. However, until the deficiencies that allowed OBO and AQM to depart from federal and Department requirements are corrected, ongoing and future power plant projects undertaken by the Department could be in jeopardy and experience similar costly outcomes. OIG is therefore offering the following recommendation.

**Recommendation 13:** (U) OIG recommends that the Bureau of Overseas Buildings Operations develop an action plan and budget for implementing recommendations to improve the performance and correct deficiencies of U.S. Embassy Baghdad, Iraq's central power plant, as recommended in the technical study report by the Miller Hull Partnership, LLP, and Mason and Hanger, Inc. This action plan should include a timeline with milestones for implementation and should report progress to the Under Secretary of State for Management.

**(U) Management Response:** OBO concurred with the recommendation, stating it has implemented the second phase of the Miller Hull Partnership, LLP, and Mason and Hanger, Inc., report to correct deficiencies of the Embassy Baghdad power plant. Funding to support the implementation plan is pending the completion of the statement of work. According to OBO, the request for funding for the implementation plan will have to compete with other worldwide priorities.

**(U) OIG Reply:** On the basis of OBO's stated concurrence and planned actions, OIG considers the recommendation resolved, pending further action. This recommendation will be closed when OIG receives documentation demonstrating that OBO has developed an action plan and budget for implementing recommendations to improve the performance and correct deficiencies of U.S. Embassy Baghdad, Iraq's central power plant, as recommended in the technical study report by the Miller Hull Partnership, LLP, and Mason and Hanger, Inc., including an implementation timeline and progress reports to the Under Secretary of State for Management.

(U) Included in its formal response to a draft of this report, OBO provided technical comments that were not directly related to the recommendations offered. In addition, although Embassy Baghdad did not provide a formal response to a draft of this report, it also provided technical comments for OIG consideration. OIG considered each technical comment, and OIG's reply to both OBO's and Embassy Baghdad's comments are presented in Appendix F.

## (U) RECOMMENDATIONS

---

**Recommendation 1:** (U) OIG recommends that the Bureau of Administration, in coordination with the Bureau of Overseas Buildings Operations, issue a directive (1) emphasizing the requirement to comply with Federal Acquisition Regulation 36.605(b), which states that access to information concerning the independent government cost estimate shall be limited to government personnel whose official duties require knowledge of the estimate and (2) underscoring accountability and identifying penalties for noncompliance.

**Recommendation 2:** (U) OIG recommends that the Bureau of Overseas Buildings Operations develop, implement, and communicate a process to require documentation that comprehensive needs assessments are conducted, detailed options are discussed, and written justifications are made when deciding to construct major projects at overseas posts.

**Recommendation 3:** (U) OIG recommends that the Bureau of Administration, in coordination with the Bureau of Overseas Buildings Operations, develop, implement, and communicate a process to ensure that new work that is not within the general scope of the contract or task order is treated as a new procurement, preventing out-of-scope modifications, as required by federal regulations and Department requirements.

**Recommendation 4:** (U) OIG recommends that the Bureau of Administration, in coordination with the Bureau of Overseas Buildings Operations, issue a directive (1) emphasizing that acquisition planning and market research are completed and documented prior to initiating new projects at overseas posts, as required by federal regulations and Department of State requirements, and (2) underscoring accountability and identifying penalties for noncompliance.

**Recommendation 5:** (U) OIG recommends that the Bureau of Administration, in coordination with the Bureau of Overseas Buildings Operations, issue a directive (1) emphasizing that the most highly qualified Architect/Engineering firm shall be selected, as required by public law, federal regulations, and Department of State requirements, and (2) underscoring accountability and identifying penalties for noncompliance.

**Recommendation 6:** (U) OIG recommends that the Bureau of Overseas Buildings Operations develop, implement, and communicate a requirement to complete an Owner's Project Requirements document that details the functional requirements of a project and the expectations of how it will be used and operated.

**Recommendation 7:** (U) OIG recommends that the Bureau of Overseas Buildings Operations develop, implement, and communicate a process that ensures that reviews for all technical disciplines are completed and documented at all interim design submissions.

**Recommendation 8:** (U) OIG recommends that the Bureau of Overseas Buildings Operations develop, implement, and communicate a process to (1) document a description of the design change, the necessity of the design change, the potential cost impact, the potential schedule impact, and management approvals when Department of State-initiated design changes require

modification to the design contract and (2) ensure the Basis of Design includes all design changes.

**Recommendation 9:** (U) OIG recommends that the Bureau of Overseas Buildings Operations develop, implement, and communicate a process requiring it to address significant design deficiencies in facilities when deficiencies are identified during construction rather than after the facilities have been constructed.

**Recommendation 10:** (U) OIG recommends that the Bureau of Overseas Buildings Operations issue a directive (1) emphasizing Department of State policy that the commissioning process begins before the design phase and that the process continues until the expiration of the 1-year warranty period of the operations and maintenance phase and (2) underscoring accountability and identifying penalties for noncompliance.

**Recommendation 11:** (U) OIG recommends that the Bureau of Overseas Buildings Operations (OBO) develop, implement, and communicate a process requiring responsible OBO officials to document specific and detailed reasons and associated risks, proportional to the level of specificity and detail in the commissioning testing results, if OBO disagrees with commissioning testing results.

**Recommendation 12:** (U) OIG recommends that the Bureau of Overseas Buildings Operations (OBO) develop, implement, and communicate processes requiring responsible OBO officials to document specific and detailed reasons, proportional to the level of specificity detailed in the commissioning reports, if OBO disagrees with commissioning report recommendations. This process must include, at a minimum, written documentation of an assessment of the risks associated with dismissing commissioning report recommendations, a comprehensive plan to mitigate those risks, and management's approval of these actions.

**Recommendation 13:** (U) OIG recommends that the Bureau of Overseas Buildings Operations develop an action plan and budget for implementing recommendations to improve the performance and correct deficiencies of U.S. Embassy Baghdad, Iraq's central power plant, as recommended in the technical study report by the Miller Hull Partnership, LLP, and Mason and Hanger, Inc. This action plan should include a timeline with milestones for implementation and should report progress to the Under Secretary of State for Management.

## (U) APPENDIX A: PURPOSE, SCOPE, AND METHODOLOGY

---

(U) The objective of the audit was to determine whether the Department of State (Department) followed federal and Department requirements and guidelines in the planning, design, construction, and commissioning of the central power plant at U.S. Embassy Baghdad, Iraq.

(U) The Office of Inspector General (OIG) conducted this audit from January to June 2023 in the Washington, DC, metropolitan area and at U.S. Embassy Baghdad, Iraq. The scope of this audit included all activities associated with the planning, design, construction, and commissioning of the new central power plan in Baghdad from July 2008, when the Department awarded indefinite-delivery, indefinite-quantity (IDIQ) contract number SAQMMA08D0090 to Einhorn Yaffee Prescott, Inc. (EYP) for architecture and engineering (A/E) services worldwide, to June 2023. OIG conducted this performance audit in accordance with generally accepted government auditing standards. These standards require that OIG plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for the findings and conclusions based on the audit objective. OIG believes that the evidence obtained provides a reasonable basis for the findings and conclusions based on the audit objective.

(U) To obtain background information, including criteria, OIG reviewed the Foreign Affairs Manual (FAM); the Foreign Affairs Handbook; and policies, procedures, and guidance established by the Bureau of Administration, Office of the Procurement Executive (A/OPE), and the Bureau of Overseas Buildings Operations (OBO). In addition, OIG reviewed the Federal Acquisition Regulation (FAR), the Department of State Acquisition Regulation, and internal Department memoranda and other acquisitions guidance. OIG also reviewed its body of work on OBO's planning, construction, operations, and maintenance activities at U.S. embassies worldwide. OIG conducted interviews with OBO and A/OPE staff and with officials from A/OPE's Office of Acquisitions Management (AQM) and Embassy Baghdad's Facilities Management Office.

(U) To determine whether the Department followed federal and Department requirements and guidelines in the planning, design, construction, and commissioning of the central power plant, OIG reviewed associated documentation and interviewed Department and embassy officials, as well as relevant officials from contracting companies. To review the planning and design phases, OIG met with Embassy Baghdad, OBO, and AQM officials, including the current OBO Near Eastern Affairs Branch Chief; the current OBO Near Eastern Affairs region Project Manager; the Chief of Staff, Deputy Chief of Staff, and Branch Chief/Contracting Officer for AQM; and EYP representatives involved in the power plant's planning and design. To review the construction phase, OIG met with an OBO Construction Executive, an OBO Construction Manager, former OBO Project Directors who served in Baghdad during this project; representatives from Caterpillar, Inc., the generator manufacturer, and representatives from Desbuild-Limak-Group 77 JV (DLG 77), the power plant's construction contractor group, and other individuals. To review the commissioning phase, as well as the time period after commissioning was substantially completed and the power plant was ready to be turned over to post for operation, OIG met with representatives from RMF Engineering, the contracted

commissioning company, the current Embassy Baghdad Senior Facilities Manager, multiple Facilities officials, Facilities Maintenance Project Coordinators who worked for Amentum,<sup>1</sup> a company contracted by the Department, and current power plant operations staff, and other individuals.

(U) In addition, OIG reviewed and analyzed applicable contract documentation related to the planning, design, construction, and commissioning phases of the power plant project.

(U) For the planning phase, OIG reviewed documents that included the following:

- (U) Department indefinite-delivery, indefinite-quantity (IDIQ) contract SAQMMA08D0090 (awarded to EYP in July 2008).
- (U) OBO Planning Standard Operating Procedures (Master and Country Plans).
- (U) OBO Working Draft Master Plan Report for Embassy Baghdad (dated May 30, 2010).
- (U) OBO Construction & Commissioning Guidebook (dated July 31, 2008).
- (U) Updated Site Utilization Plan for U.S. Embassy Baghdad, created by EYP while under contract for OBO.

(U) For the design phase, OIG reviewed documents that included the following:

- (U) Department contract SAQMMA09F4048 awarded to EYP (September 2011).
- (U) OBO Operations Policy Directive (PD) Design PDs: Integrated Design Reviews.
- (U) OBO Standard Operating Procedure: Design SOP: Integrated Design Review (2019).
- (U) Scope of Work for the Design of the Power Plant and Utility Infrastructure Upgrades from CONTRACT SAQMMA09F4048.
- (U) Architecture Engineering firm Selection Memorandum from CONTRACT SAQMMA09F4048.
- (U) OBO Construction and Commissioning Division Guidebook (2008).
- (U) OBO Policy Directive (PD): Contracts PD 02: Architectural and Engineering (A/E) Contractor Selection (Issued: 06/29/1987, Last Revised: 05/10/2005, Current Revision: 5/22/2017).
- (U) OBO Basis of Design (narrative document) for Embassy Baghdad Power Plant.
- (U) 100 percent Submission Design Report.

(U) For the construction phase, OIG reviewed documents that included the following:

- (U) Construction: Contract SAQMMA12C0283 awarded to DLG 77 JV for construction of the power plant (awarded September 2012).
- (U) OBO Construction and Commissioning Division Guidebook (2008).

---

<sup>1</sup> (U) In December 2018, the Department re-awarded Pacific Architects and Engineers (PAE) a contract to operate and maintain Embassy Baghdad, including managing its facilities and infrastructure. In February 2022, Amentum purchased PAE and assumed responsibility for the Embassy Baghdad contract.

- (U) Construction Contract Serial Letters including Baghdad Limited Notice to Proceed Letters.
- (U) Request for Qualifications/Proposal Letters and corresponding Statements of Work.

(U) For the commissioning phase, OIG reviewed documents that included the following:

- (U) Commissioning: Contract SAQMMA13F0151 awarded to RMF Engineering, Inc. (awarded December 2013).
- (U) Final Commissioning Report prepared by RMF Engineering, Inc.
- (U) OBO Construction and Commissioning Division Guidebook (2008).
- (U) Construction Management Standard Operating Procedures, OBO Policy and Procedures Directives (2013 and 2021).
- (U) OBO Generic Commissioning Plan, Commissioning Plan drafted by RMF.
- (U) Commissioning test reports.

(U) In addition to requesting and reviewing the documents listed, OIG also requested other key documents, which both OBO and AQM did not provide. Specifically, AQM and OBO stated that they could not locate requested documentation related to planning for the central power plant, including acquisition planning and market research, which the FAR requires,<sup>2, 3</sup> and utility needs assessments, which were required by task order SAQMMA09F4048 awarded to EYP for site utilization planning. In addition, AQM and OBO stated that they could not locate documents related to the power plant's design, construction, and commissioning that were often referred to in interviews and that are standard documents for the Department's construction projects. Examples include the following: a rationale for initiating projects not included in the original master plan, documentation supporting the development of the design contract's scope of work, deliverables for the power plant design contract, design reviews for major modifications, owners' project requirements used in commissioning, and integrated systems testing and opposite season testing results. In addition, as noted in the Audit Results section of this report, OIG found that AQM provided the independent government cost estimate to the A/E contractor with the scope of work for its task order before the contractor provided an estimated valuation of its services. However, AQM officials did not provide any documentation explaining the rationale for providing this information to the contractor. The Contracting Officer who provided the independent government cost estimate to the contracting company was not available for OIG to interview.

(U) OIG recognizes that the scope of this audit encompassed a long period of time. Since 2008, the Department's standard filing practices have changed, and documents now filed electronically were once held in paper form. Nonetheless, the documents requested by OIG

---

<sup>2</sup> (U) Federal Acquisition Regulations 16.505(b)(1) provide requirements for placing "orders under multiple-award contracts," which is the Department IDIQ for AE services. The contracting officer must provide each awardee a fair opportunity to be considered for each order exceeding the micro-purchase threshold issued under multiple delivery-order contracts or multiple task-order contracts.

<sup>3</sup> (U) FAR 10.001 "Policy" states "Agencies *shall* conduct *market research* appropriate to the circumstances."

should have been readily available because of the importance of the new central power plant to Embassy Baghdad.

(U) Furthermore, OIG took steps to determine any possible effects of fraudulent contract activity on the subsequent performance of the new central power plant. In April 2019, the Contracting Officer overseeing the construction contract was indicted on charges of conspiracy, bribery, honest services fraud, and making false statements to investigators. Specifically, the indictment stated that, from November 2012 to early 2017, the Contracting Officer and the owner of a Turkish construction firm that was subcontracted to help construct the power plant had engaged in a bribery and procurement fraud scheme in which the Contracting Officer received at least \$239,300 in cash payments from the business owner. In return, the Contracting Officer supervised multimillion dollar construction contracts awarded to the owner's business partners. In February 2020, the Contracting Officer was sentenced to prison.

(U) As part of this audit, which began after the case's conclusion, the audit team conducted analyses to determine what, if any, impact the fraud scheme had on the new central power plant's construction. To make this determination, the audit team first reviewed case files and met with OIG Office of Investigations officials to understand the indictment and the scheme. The team then met with OBO and AQM officials to discuss the measures that each office took in this instance and in similar instances to assess the impact the identified fraud had on the quality of goods and services the Department had received. Considering the responses from OBO and AQM, as well as information from the Office of Investigations case files, OIG concluded that the fraudulent activity had added time and costs to the project but that there was no evidence that the scheme directly affected the quality of design, construction, or commissioning services.

### **(U) Data Reliability**

(U) OIG did not use computer-processed data for this audit. However, OIG used information provided by OBO as part of its audit evidence. As such, OIG designed procedures to provide reasonable assurance over the reliability of the information provided, including comparing information contained in OBO's internal reporting with contract modifications and reporting from the contracting companies executing the work. Overall, OIG determined that, for the intended use, the information it relied on was sufficient and appropriate for its work.

### **(U) Work Related to Internal Control**

(U) During the audit, OIG considered a number of factors, including the subject matter of the project, to determine whether internal control was significant to the audit objective. Based on its consideration, OIG determined that internal control was significant for this audit. OIG then considered the components of internal control and the underlying principles included in the Standards for Internal Control in the Federal Government<sup>4</sup> to identify internal controls that

---

<sup>4</sup> (U) Government Accountability Office, *Standards for Internal Control in the Federal Government* (GAO-14-704G, September 2014).

were significant to the audit objective. Considering internal control in the context of a comprehensive internal control framework can help auditors determine whether underlying internal control deficiencies exist.

(U) For this audit, OIG concluded that five of five internal control components from the Standards for Internal Control in the Federal Government – Control Environment, Risk Assessment, Control Activities, Information and Communication, and Monitoring – were significant to the audit objective. The Control Environment component is the foundation for an internal control system. It provides the discipline and structure to help an entity achieve its objectives. The Risk Assessment component assesses the risks facing the entity as it seeks to achieve its objectives. This assessment provides the basis for developing appropriate risk responses. The Control Activities component includes the actions that management establishes through policies and procedures to achieve objectives and respond to risks in the internal control system, which includes the entity’s information system. The Information and Communication component relates to the quality information that management and personnel communicate and use to support the internal control system. The Monitoring component relates to activities management establishes and operates to assess the quality of the performance of internal controls over time and promptly resolve the findings of audits and other reviews. OIG also concluded that six principles related to the selected components were significant to the audit objective as described in Table A.1.

**(U) Table A.1: Internal Control Components and Principles Identified as Significant**

<b>(U) Components</b>	<b>(U) Principles</b>
Control Environment	Principle 5: Management should evaluate performance and hold individuals accountable for their internal control responsibilities.
Risk Assessment	Principle 8: Management should consider the potential for fraud when identifying, analyzing, and responding to risks. Principle 9: Management should identify, analyze, and respond to significant changes that could impact the internal control system.
Control Activities	Principle 10: Management should design control activities to achieve objectives and respond to risks.
Information and Communication	Principle 13: Management should use quality information to achieve the entity’s objectives.
Monitoring	Principle 16: Management should establish and operate monitoring activities to monitor the internal control system and evaluate the results.

**(U) Source:** OIG-generated from an analysis of internal control components and principles from the Government Accountability Office, Standards for Internal Control in the Federal Government (GAO-14-704G, September 2014).

(U) OIG interviewed Department officials and reviewed documents to obtain an understanding of the internal controls related to the components and principles identified as significant for this audit. OIG performed procedures to assess the design, implementation, and operating effectiveness of key internal controls. Specifically, OIG reviewed relevant OBO standard operating procedures for planning, design, construction, and commissioning, including both previous iterations and current guidance, and analyzed AQM and OBO contract documents to

assess compliance with laws and reviewed new central power plant contract documents to determine evidence of noncompliance with federal regulations and OBO internal guidance. In addition, OIG interviewed OBO and AQM officials in Washington, DC, as well as Embassy Baghdad Management Section Officers and Embassy Baghdad facilities staff at the Baghdad Embassy Compound (BEC) to obtain an understanding of control activities throughout the life of the power plant project. Internal control deficiencies that OIG determined were significant to the audit objective are presented in the Audit Results section of this report.

## **(U) Prior Office of Inspector General Reports**

(U) In the August 2022 report *Audit of Department of State Efforts To Promote Competition for Overseas Construction Projects* (AUD-CGI-22-34), OIG reported that the Department took steps to promote competition related to construction contracts in accordance with federal law and Department policy but did not develop a formal process for its efforts. In addition, OIG reported that the Department complied with requirements of the Omnibus Diplomatic Security and Antiterrorism Act of 1986 and generally promoted subcontracting opportunities for small businesses. However, neither OBO nor AQM fully complied with the acquisition planning and market research requirements in the Federal Acquisition Regulation (FAR) and Department guidance. OIG offered three recommendations, and as of July 2023, one recommendation had been implemented and closed, while two remained open and are considered resolved pending further action.

(U) In the July 2020 report *Management Assistance Report: Execution of the New Embassy Compound London Construction Project Offers Multiple Lessons* (AUD-CGI-20-36), OIG reported that inadequate attention to major systems design and local building requirements presented challenges during the construction of the New Embassy Compound at Embassy London. OIG concluded that addressing these challenges would require additional financial outlays. OIG also found that certain decisions and inadequate installation, among other things, resulted in building deficiencies that will require continuous attention. OIG offered seven recommendations, and as of July 2023, all seven recommendations had been implemented and closed.

(U) In the June 2019 report *Management Assistance Report: Modernizing Process To Maintain Overseas Buildings Operations Commissioning Documentation Is Needed* (AUD-MERO-19-31), OIG reported two distinct weaknesses in OBO's practices for maintaining commissioning documentation. First, commissioning agents typically completed commissioning tests in hard-copy format, not electronic format, and uploaded documentation only at the end of the project. OIG concluded that the risk of important commissioning tests and related documentation being inadvertently lost or not uploaded increased because commissioning activities often take several years to complete and involve thousands of pages. In addition, OBO did not use OBOLink to deposit construction project documentation, as required, because the platform could not accommodate voluminous construction project files. OIG offered six recommendations, and as of July 2023, five recommendations had been implemented and closed, while one remained open and is considered resolved pending further action.

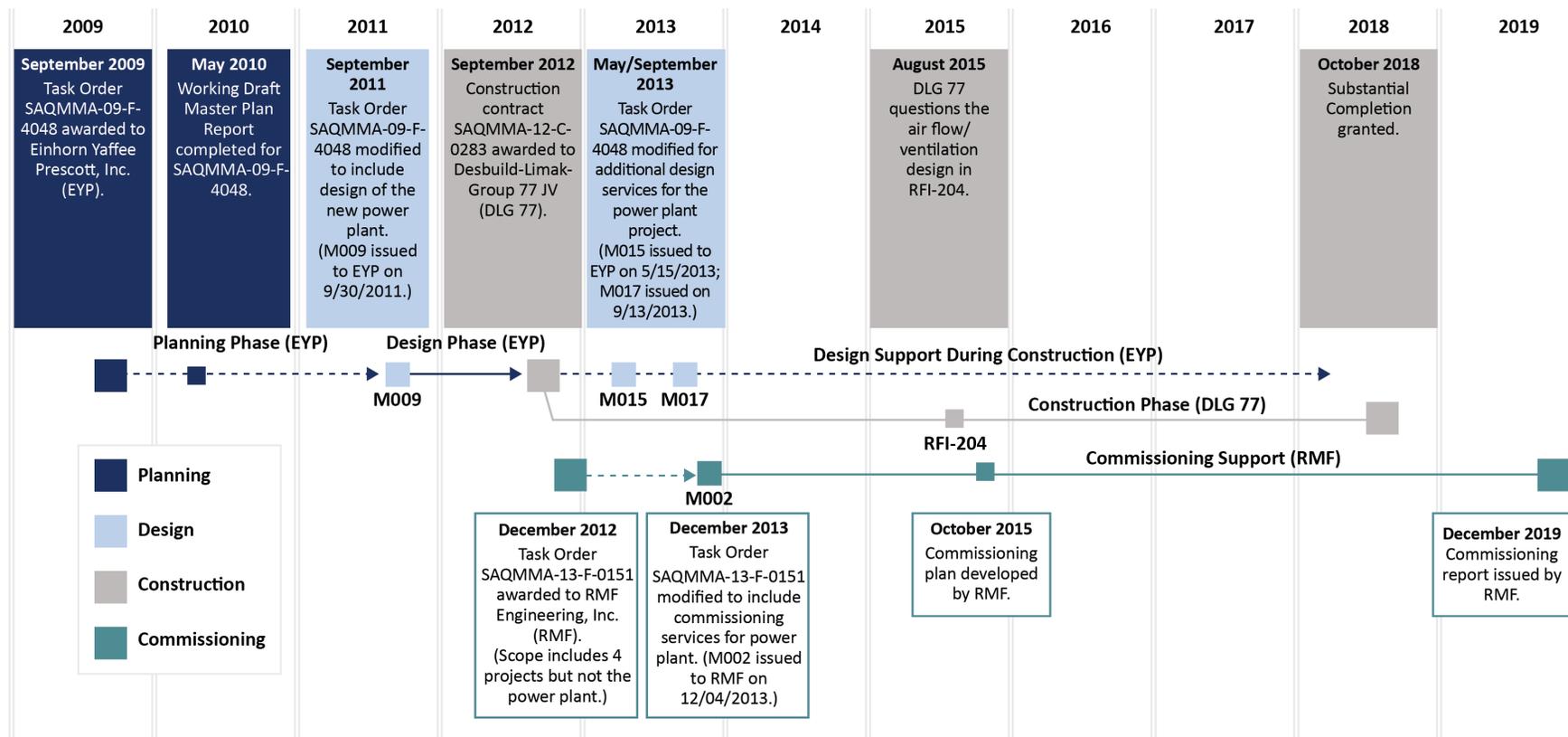
(U) In the January 2018 report *Audit of Bureau of Overseas Buildings Operations' Oversight of New Construction Projects at Embassy Kabul, Afghanistan* (AUD-MERO-18-17), OIG reported that the OBO Project Director in Kabul declared both buildings substantially complete and proceeded with occupancy before key project milestones had been met. The decision to accept the buildings without completing the commissioning process contributed to a range of building deficiencies after occupancy. OIG also reported that fundamental disagreements between the OBO Project Director and the commissioning agent regarding the readiness of the systems and ambiguous OBO guidance as to which systems must be commissioned prior to substantial completion contributed to the deficiencies. OIG also reported that OBO did not ensure that the construction contractor or the commissioning agent prepared and submitted key project documents before substantial completion and occupancy, that OBO did not follow established procedures or best practices in planning for the buildings' turnover, and that Facility Management personnel were unprepared to accept responsibility for the buildings' operations and maintenance. OIG offered 10 recommendations, and as of July 2023, two had been implemented and closed, while eight remained open pending further action.

(U) In the August 2013 report *Audit of the U.S. Mission Iraq Staffing Process* (AUD-MERO-13-33), OIG reported the Department and Embassy Baghdad had reduced their presence in Iraq by closing nine sites and reducing total staff by 61 percent. However, the process for determining U.S. Mission Iraq staffing requirements did not include a systematic staffing analysis that fully considered U.S. foreign policy priorities in Iraq. Instead, operating costs, security issues, and the Government of Iraq's desire to reduce the U.S. presence led the Department to decrease the number of staff under Chief of Mission authority in Iraq. The lack of planning for the mission's staffing needs hindered the Department's ability to plan for Embassy Baghdad's need for facilities and utilities, including power generation. OIG offered three recommendations, and as of July 2023, all three recommendations had been implemented and closed.

(U) In the May 2011 report *Department of State Planning for the Transition to a Civilian-Led Mission in Iraq* (MERO-I-11-08), OIG reported that low electric power generation complicated the transition of staff to the embassy compound. Embassy facility managers reported that their existing power plant generators already exceeded their intended use and that the demand for electricity was only increasing as more staff moved onto the embassy compound, putting further strain on the embassy's power plant. OIG offered three recommendations, and as of July 2023, all three recommendations had been implemented and closed.

(U) In the October 2009 report *Audit of the Design and Construction of the New Embassy Compound in Baghdad, Iraq* (AUD/IQC-09-25), OIG reported that changes to the contract for constructing the New Embassy Compound had altered the rating, arrangement, and configuration of the power generation and distribution systems. These changes resulted in less electrical power generation, and the embassy had to install more cooling systems for the power plant building. OIG reported that the repairs to the power plant cost the Department \$500,000 and projected that design flaws would cost the Department an additional \$11 million over the course of the life span of the power plant. OIG offered 20 recommendations, and as of July 2023, all 20 recommendations had been implemented and closed.

(U) APPENDIX B: TIMELINE OF MAJOR PROJECT MILESTONES



(U) Source: Generated by OIG from Department policies as well as contract documentation and reporting involving the Embassy Baghdad new central power plant.

## (U) APPENDIX C: LAYOUT OF EMBASSY BAGHDAD CENTRAL POWER PLANT

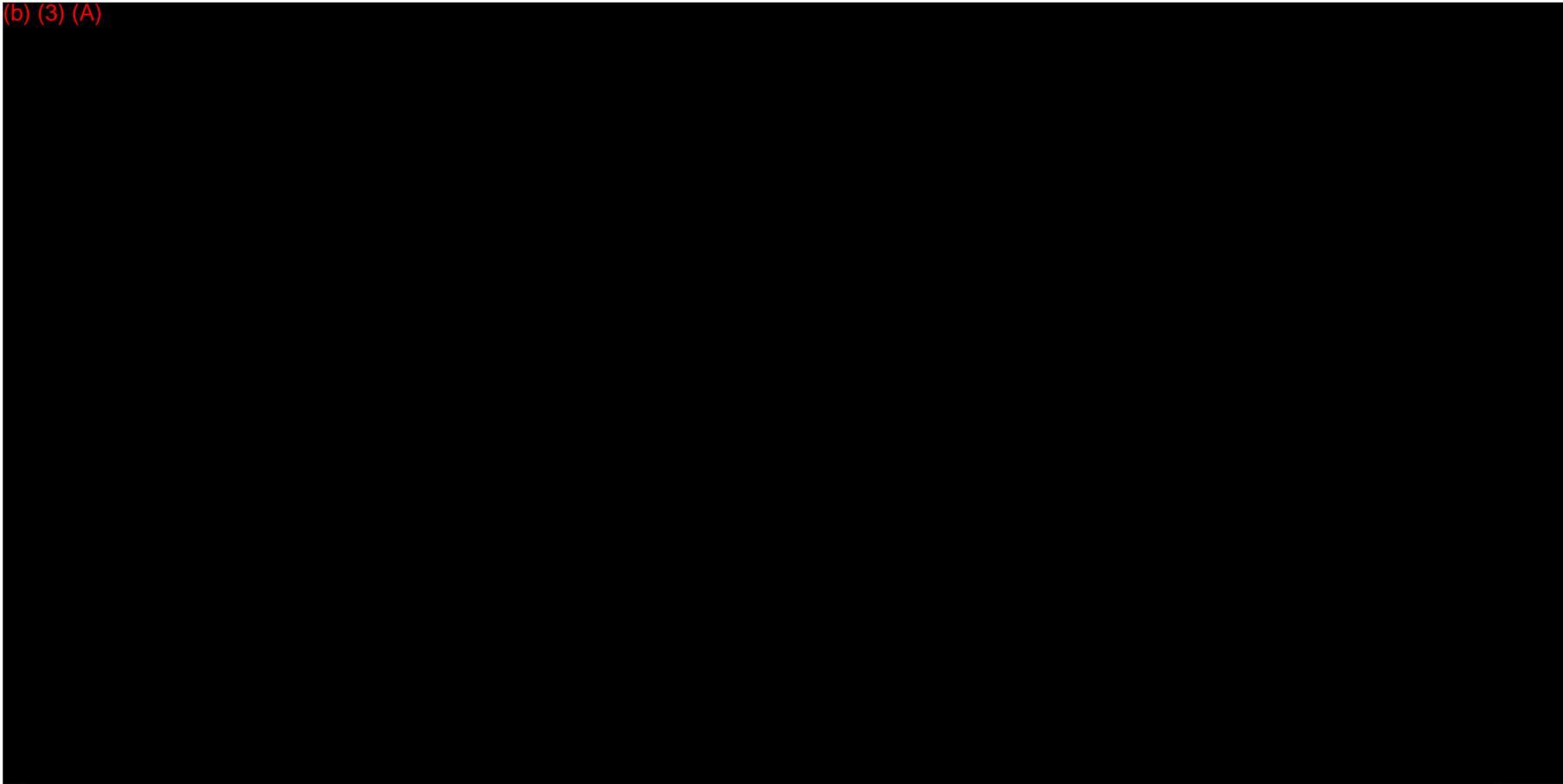
---

(~~SBU~~) The new central power plant is housed in a utility building with two wings extending off a central section. Each wing houses five 2.6 MW generators, for a maximum power generation capacity of 26 MW. Each side of the plant also has a room for the switchgear that controls the operation of the generators, as well as fuel supply connections for each generator room. (b) (3) (A)



~~Sensitive But Unclassified~~

(b) (3) (A)



(U) Source: Embassy Baghdad Facilities Management Office.

## (U) APPENDIX D: BUREAU OF ADMINISTRATION RESPONSE

---



**United States Department of State**

**Washington, D.C. 20520**

UNCLASSIFIED

October 26, 2023

**MEMORANDUM**

TO: OIG/AUD – Norman P. Brown

FROM: A/OPE/AQM – Vincent Sanchez, Acting Vincent J Sanchez  
16763 Jorgens by: kscoc1  
Date: 20231026/09/2023 04:07

SUBJECT: Draft Report - Audit of the Planning, Design, Construction, and Commissioning of the Central Power Plant at U.S. Embassy Baghdad, Iraq (AUD-MERO-23-XX)

Thank you for the opportunity to provide a response to the subject report. The point of contact for this report is the A/OPE Front Office ([A-OPEFrontOfficeAssistants@state.gov](mailto:A-OPEFrontOfficeAssistants@state.gov)).

**Recommendation 1:** OIG recommends that the Bureau of Administration, in coordination with the Bureau of Overseas Buildings Operations, issue a directive (1) emphasizing the requirement to comply with Federal Acquisitions Regulation 36.605(b), which states that access to information concerning the independent government cost estimate shall be limited to government personnel whose official duties require knowledge of the estimate and (2) underscoring accountability and identifying penalties for noncompliance.

**Management Response to Draft Report (10/26/23):** The Bureau of Administration, Office of the Procurement Executive, Office of Acquisitions Management (A/OPE/AQM) concurs with the recommendation intent and has attached a copy of the newly released, as of October 1, 2023, Department of State Acquisition Manual ([DOSAM](#)). A/OPE respectfully requests the recommendation be closed as implemented based on the release of the DOSAM.

The DOSAM provides clear guidance to all contracting professionals on the order of precedence of acquisition regulation and policy (see Section 601.104-80 Order of precedence). Further, the DOSAM supersedes in precedence any internal office instructions, policies, or procedures such as those the Head of Contracting may issue. Some pertinent parts/subparts of the DOSAM are:

- Subpart 601.6 - Career development, contracting authority, and responsibilities which supplements FAR Part 1 in further describing Department of State employee responsibilities;
- Part 607 Acquisition planning includes a Procurement Integrity Notice on unauthorized disclosure of sensitive information and establishes required planning activities the procurement team must engage in; and,
- Part 636 Construction and architect-engineer contracts specifically supplements FAR Part 36 requirements for process and procedure.

The Deputy Assistant Secretary for Acquisition and Senior Procurement Executive in issuing the DOSAM has effectively met and exceeded the scope of the recommendation by shifting the

UNCLASSIFIED

UNCLASSIFIED

-2-

acquisition governance paradigm at the Department and by emphasizing the requirement to comply with the FAR, DOSAR, DOSAM, and other internal instructions, policies, and procedures. In support of issuing the DOSAM, A/OPE has developed training sessions on the DOSAM and the schedule for these trainings has been published to the acquisition workforce by email and on A/OPE's website (<https://usdos.sharepoint.com/sites/A-OPE/SCPD/SitePages/TRNG-TO.aspx>), and a training video for the DOSAM will be published to the A/OPE's website as well.

**Recommendation 3:** OIG recommends that the Bureau of Administration, in coordination with the Bureau of Overseas Buildings Operations, develop, implement, and communicate a process to ensure that new work that is not within the general scope of the contract or task order is treated as a new procurement, preventing out-of-scope modifications, as required by federal regulations and Department requirements.

**Management Response to Draft Report (10/26/23):** The Bureau of Administration, Office of the Procurement Executive, Office of Acquisitions Management (A/OPE/AQM) concurs with the recommendation intent. As described in the management response to Recommendation 1, A/OPE has launched the [DOSAM](#) effectively shifting the acquisition governance paradigm at the Department. A/OPE respectfully requests the recommendation be closed as implemented based on the release of the DOSAM.

**Recommendation 4:** OIG recommends that the Bureau of Administration, in coordination with the Bureau of Overseas Buildings Operations, (1) issue a directive emphasizing that acquisition planning and market research are completed and documented prior to initiating new projects at overseas posts, as required by federal regulations and Department of State requirements, and (2) underscoring accountability and identifying penalties for noncompliance.

**Management Response to Draft Report (10/26/23):** The Bureau of Administration, Office of the Procurement Executive, Office of Acquisitions Management (A/OPE/AQM) concurs with the recommendation intent. As described in the management response to Recommendation 1, A/OPE has launched the DOSAM effectively shifting the acquisition governance paradigm at the Department. A/OPE respectfully requests the recommendation be closed as implemented based on the release of the DOSAM.

**Recommendation 5:** OIG recommends that the Bureau of Administration, in coordination with the Bureau of Overseas Buildings Operations, issue a directive (1) emphasizing that the most highly qualified Architect/Engineering firm shall be selected, as required by public law, federal regulations, and Department of State requirements, and (2) underscoring accountability and identifying penalties for noncompliance.

**Management Response to Draft Report (10/26/23):** The Bureau of Administration, Office of the Procurement Executive, Office of Acquisitions Management (A/OPE/AQM) concurs with the recommendation intent. As described in the management response to Recommendation 1, A/OPE has launched the [DOSAM](#) effectively shifting the acquisition governance paradigm at the

UNCLASSIFIED

UNCLASSIFIED

-3-

Department. A/OPE respectfully requests the recommendation be closed as implemented based on the release of the DOSAM.

UNCLASSIFIED

## (U) APPENDIX E: BUREAU OF OVERSEAS BUILDINGS OPERATIONS RESPONSE

---



United States Department of State

Washington, D.C. 20520

UNCLASSIFIED

October 13, 2023

### INFO MEMO FOR NORMAN BROWN – OIG/AUD

FROM: OBO/COMP– Elizabeth A.S. Slaughter Elizabeth a Slaughter Digitally signed by Elizabeth a Slaughter  
Date: 2023.10.13 10:13:36  
-04'00'

SUBJECT: Bureau of Overseas Buildings Operations (OBO) Response to OIG draft Audit of the Planning, Design, Construction, and Commissioning of the Power Plant at U.S. Embassy Baghdad, Iraq

OBO appreciates the OIG’s careful review of the Baghdad power plant project and for providing areas for improvement for similar technical projects. Although OBO notes that the Bureau has developed its own lessons learned and process improvements resulting from the challenges it faced with the power plant, the draft report captures recommendations that will allow OBO to reinforce necessary improvements.

OBO would like to highlight the following suggested edits:

- In the “Highlights” Page of the report, and again on Pages 7 and 32 it states, “OBO and AQM did not always follow federal and Department requirements when executing the power plant project. This was primarily due to the desire to expedite completion of the project.”

OBO would like to note, and suggest that the OIG add to this reference, that the desire to expedite completion was due to the security and life safety needs at Embassy Baghdad, a Critical Threat post.

- Page 8 and again on Page 10 of the report states, “Moreover, Department officials interviewed for this audit were uncertain of the rationale for constructing a new power plant.”

OBO would like to note, and suggest that the OIG edit this sentence to convey, that the Department was unable to locate the original documentation explaining the rationale for constructing a new power

UNCLASSIFIED

UNCLASSIFIED

-2-

plant. As indicated in the Background section of the report on Page 1, there was a history of deficiencies and inadequacies with the power at Embassy Baghdad, including those previously identified by OIG in 2009. If the intent of this audit is to evaluate the planning and execution of the project, OBO recommends that OIG consider whether the comment quoted above is fitting with the intent since the need for the plant is not in question.

Please see the following responses to the 9 recommendations for which OBO is the action office.

**Recommendation 2: (U) OIG recommends that the Bureau of Overseas Buildings Operations develop, implement, and communicate a process to require documentation that comprehensive needs assessments are conducted, detailed options are discussed, and written justifications are made when deciding to construct major projects at overseas posts.**

**OBO response: OBO concurs and has made continuous improvements to its process to require documentation that needs assessments are conducted.**

**Recommendation 6: (U) OIG recommends that the Bureau of Overseas Buildings Operations develop, implement, and communicate a requirement to complete an Owner's Project Requirements document that details the functional requirements of a project and the expectations of how it will be used and operated.**

**OBO response: As OBO has discussed with the OIG during this audit, OBO does not issue a single traditional Owner's Project Requirements (OPR) document and contends that this would be a redundant effort. Given the complexity of OBO's project program, the Bureau already has several processes, standards and programs that create and maintain the information and elements contained in a typical OPR document.**

**OBO notes that there were references to the OPR, as a singular document, in Division 1 and Commissioning contracts due to previous attempts to align with industry practice. However, in this instance, industry practice does not meet**

UNCLASSIFIED

UNCLASSIFIED

-3-

**OBO's ongoing program and functional operations, and OBO is working to remove or update these references in all documentation.**

**OBO offers to communicate and include in Commissioning Agent training where to locate the various components of the OPR content.**

**Recommendation 7:** (U) OIG recommends that the Bureau of Overseas Buildings Operations develop, implement, and communicate a process that ensures that reviews for all technical disciplines are completed and documented at all interim design submissions.

**OBO response:** OBO concurs with this recommendation. OBO will update its Standard Operating Procedures to ensure that reviews for all technical disciplines are completed and documented at all interim design submissions to include who will participate in reviews, and documentation of the participation of all SMEs.

**Recommendation 8:** (U) OIG recommends that the Bureau of Overseas Buildings Operations develop, implement, and communicate a process to (1) document a description of the design change, the necessity of the design change, the potential cost impact, the potential schedule impact, and management approvals when Department of State-initiated design changes require modification to the design contract, and (2) ensure the Basis of Design includes all design changes.

**OBO Response:** OBO concurs with this recommendation. OBO has already developed a project-specific Decision and Deviation Matrix (DDM) requirement for all project development task orders that will meet the intent of this recommendation. This document records agreements between the Contractor and OBO relative to project-specific decisions and deviations involving OBO requirements, local municipality or host government influences, existing conditions, or project-specific security related interpretations. OBO also will review and update any appropriate SOPs as needed to ensure documentation and approvals are recorded in official project records.

UNCLASSIFIED

UNCLASSIFIED

-4-

**Recommendation 9:** (U) OIG recommends that the Bureau of Overseas Buildings Operations develop, implement, and communicate a process requiring it to address significant design deficiencies in facilities when deficiencies are identified during construction rather than after the facilities have been constructed.

**OBO response:** OBO concurs with this recommendation and will review and reinforce its process for addressing design deficiencies during construction. In cases where OBO makes a Risk Management decision to defer corrective action, OBO will modify its processes to ensure appropriate documentation, approvals and follow-up on subsequent corrective action.

**Recommendation 10:** (U) OIG recommends that the Bureau of Overseas Buildings Operations issue a directive (1) emphasizing Department of State policy that the commissioning process begins before the design phase, and that the process continues until the expiration of the 1-year warranty period of the operations and maintenance phase and (2) underscoring accountability and identifying penalties for noncompliance.

**OBO response:** OBO requests that the recommendations language be updated to reflect:

- **OIG recommends that the Bureau of Overseas Buildings Operations issue a directive for its capital projects (1) emphasizing Department of State policy that the planning for commissioning begins in the design phase, and that the commissioning process continues until the expiration of the 1-year warranty period and (2) underscoring accountability and identifying penalties for noncompliance.**

**OBO concurs with this recommendation as rewritten and will issue a directive reiterating the process of early commissioning team involvement in the design.**

**Recommendation 11:** (U) OIG recommends that the Bureau of Overseas Buildings Operations (OBO) develop, implement, and communicate a process requiring responsible OBO officials to document specific and detailed reasons and associated risks, proportional to the level of specificity and detail in the

UNCLASSIFIED

UNCLASSIFIED

-5-

commissioning testing results, if OBO disagrees with commissioning testing results.

**OBO response: OBO concurs with this recommendation. OBO will review and reinforce the process currently in place when OBO disagrees with the commissioning testing results to include documenting specific and detailed reasons and associated risks, proportional to the level of specificity and detail in the commissioning testing results.**

**Recommendation 12:** (U) OIG recommends that the Bureau of Overseas Buildings Operations (OBO) develop, implement, and communicate processes requiring responsible OBO officials to document specific and detailed reasons, proportional to the level of specificity detailed in the commissioning reports, if OBO disagrees with commissioning report recommendations. This process must include, at a minimum, written documentation of an assessment of the risks associated with dismissing commissioning report recommendations, a comprehensive plan to mitigate those risks, and management's approval of these actions.

**OBO response: OBO concurs with this recommendation. OBO will review current training requirements, including training improvements since, and as a result of, the power plant project, and determine if additional improvements are needed. OBO also will consider improvements to how the Project Director / Contracting Office Representative considers input from other subject matter experts before making decisions on contract compliance, and improved documentation of those decisions (including decisions to not take immediate action).**

**Recommendation 13:** (U) OIG recommends that the Bureau of Overseas Buildings Operations develop an action plan and budget for implementing recommendations to improve the performance and correct deficiencies of U.S. Embassy Baghdad, Iraq's central power plant, as recommended in the technical study report by the Miller Hull Partnership LLP, and Mason and Hanger Inc. This action plan should include a timeline with milestones for implementation and should report progress to the Under Secretary of State for Management.

UNCLASSIFIED

UNCLASSIFIED

-6-

**OBO response: OBO concurs with this recommendation. OBO has implemented the second phase of Miller Hull / Mason & Hanger's report to correct deficiencies of the Embassy Baghdad power plant. Funding to support implementation is pending completion of the Implementation Plan Statement of Work (SOW). Request for funding will have to compete with other worldwide priorities.**

UNCLASSIFIED

## (U) APPENDIX F: BUREAU OF OVERSEAS BUILDINGS OPERATIONS AND U.S. EMBASSY BAGHDAD, IRAQ, TECHNICAL COMMENTS

---

(U) In its formal response to a draft of this report, the Bureau of Overseas Buildings Operations (OBO) provided two technical comments that did not directly relate to Office of Inspector General (OIG) recommendations. In addition, although it did not provide a formal response to a draft of this report, U.S. Embassy Baghdad, Iraq, provided three technical comments for OIG consideration. The technical comments offered, and OIG's replies are summarized below.

### (U) OBO Technical Comments

**(U) OBO Technical Comment 1:** OBO requested that OIG add language on the Highlights Page and on pages 7 and 32 of the draft report to indicate that OBO's desire to expedite the project's completion was due to security and life safety needs at Embassy Baghdad. Specifically, OBO requested that OIG add that "the desire to expedite completion was due to the security and life safety needs at Embassy Baghdad, a Critical Threat post."

**(U) OIG Reply:** OIG acknowledged in the Audit Results section of this report that the Department's desire to expedite the project was because of the security and life support needs at a critical threat post such as Embassy Baghdad. However, some facilities contractor personnel noted that advancing a project without having corrected identified deficiencies does not ensure the security and life support needs of the embassy. Regardless of the underlying reason why the deficiencies went unaddressed, the Department ultimately missed opportunities at each project phase to address known deficiencies that have now become liabilities. As a result, persistent performance problems with the central power plant have required the Department to incur significant costs attempting to mitigate the problems and provide reliable power. For these reasons, OIG elected not to add the language requested by OBO.

**(U) OBO Technical Comment 2:** OBO also requested that OIG edit a sentence on pages 8 and 10 of the draft report to reflect that "the Department was unable to locate the original documentation explaining the rationale for constructing a new power plant." OBO noted that OIG stated in the report's Background section that "there was a history of deficiencies and inadequacies with the power at Embassy Baghdad, including those OIG identified in 2009." OBO stated that, if the intent was to evaluate the planning and execution of the project, it "recommends that OIG consider whether the comment quoted above is fitting with the intent since the need for the new plant is not in question."

**(U) OIG Reply:** The scope of OIG's audit included all activities related to the planning, design, construction, and commissioning of the new central power plant, including the decision to construct the power plant. As reported in the Audit Results section of this report, given the lack of documentation and inconsistent responses from officials OIG interviewed, it is unclear when or on what basis a decision was made to construct the new power plant. Since the Department could not provide documentation supporting its decision to construct a new power plant, and

since officials OIG interviewed provided inconsistent reasoning for the new power plant, OIG elected not to make the edit requested by OBO.

## **(U) Embassy Baghdad Technical Comments**

**(U) Embassy Baghdad Technical Comment 1:** Embassy Baghdad stated that the draft report placed insufficient weight on the working conditions in which the power plant was constructed, such as the fact that the Department Contracting Officer was found guilty of conspiracy, bribery, and fraud.

**(U) OIG Reply:** OIG acknowledges in this report the extenuating circumstances surrounding the construction of the central power plant at Embassy Baghdad. However, that does not remove the Department's obligation to construct a facility that met the embassy's needs. In addition, as noted in Appendix A of this report, OIG found no evidence that the fraud committed by the Contracting Officer interfered with the Department's obligation to plan, design, construct, and commission the power plant in accordance with requirements. As such, OIG elected not to alter the report based on this comment.

**(U) Embassy Baghdad Technical Comment 2:** Embassy Baghdad stated that language in the draft report implied power plant failures were caused by operational failures rather than manufacturer failures on a new model engine. Embassy Baghdad also noted concern with OIG's use of the word "explosion" when describing generator failures.

**(U) OIG Reply:** OIG does not agree that the draft report implied power plant failures were caused by only operational failures rather than manufacturer failures. Department and contractor personnel noted that the central power plant's generators have faced increased stress and strain and required more maintenance than those in other power plants, and this report describes several factors that contribute to the power plant's deficiencies. The technical study also noted that the central power plant's airflow was deficient and ran opposite to the generator manufacturer's recommendation, further complicating the attribution of manufacturer responsibility. According to Department officials and personnel at post charged with operating the power plant, failures with the Department processes at each project phase and the desire to expedite the facility's completion caused the operational challenges the plant has experienced. Regarding the embassy's comment about the word "explosion," OIG used this word because that was the terminology embassy personnel used to describe the engines' failures. As a result, OIG elected not to alter the report based on this comment.

**(U) Embassy Baghdad Technical Comment 3:** Embassy Baghdad stated that the wording "unreliable electrical service" used in a draft of this report to describe the persistent power outages at Embassy Baghdad was inaccurate, claiming that the 99.96 percent uptime for CY2023 (January-September) and 99.98 percent uptime for CY2022 (January-December) contradicted OIG's statement.

**(U) OIG Reply:** OIG acknowledges that the provision of power to the embassy has become more consistent in recent years, generally providing the power necessary to support embassy

operations and life support. However, as stated in the Audit Results section of this report, this has been achieved at significant cost through various mitigating actions, such as installing large air conditioning units to blow cool air on the power plant generators, and by adding stand-alone generators around the compound to shed some of the load burden from the power plant and assist the power plant in generating sufficient power. Without these and other mitigations, the power plant is incapable of powering the embassy compound on its own during the hottest months of the year, and the risk of unplanned power outages and other failures at the power plant remain. Since January 2023, OIG has observed two significant unplanned outages, and two generators have been taken off the compound for extraordinary maintenance. Given the interruptions to service and extensive mitigation efforts, OIG elected not to alter the report based on this comment.

## (U) ABBREVIATIONS

---

A/E	Architecture & Engineering
A/OPE	Bureau of Administration, Office of the Procurement Executive
AQM	Bureau of Administration, Office of the Procurement Executive, Office of Acquisitions Management
BEC	Baghdad Embassy Compound
DLG 77	Desbuild-Limak-Group 77 JV
DOSAM	Department of State Acquisition Manual
EYP	Einhorn Yaffee Prescott, Inc.
FAM	Foreign Affairs Manual
FAR	Federal Acquisition Regulation
IDIQ	Indefinite Delivery, Indefinite Quantity Contract
IDR	Integrated Design Review
IGCE	Independent Government Cost Estimate
MW	Megawatt
OBO	Bureau of Overseas Buildings Operations
OIG	Office of Inspector General
OPR	Owner's Project Requirements
RMF	RMF Engineering, Inc.

## (U) OIG AUDIT TEAM MEMBERS

---

David G. Bernet, Division Director  
Global Emergencies and Emerging Risks  
Office of Audits

J. Addison Ricks, Audit Manager  
Global Emergencies and Emerging Risks  
Office of Audits

Heather Kinsman, Auditor  
Global Emergencies and Emerging Risks  
Office of Audits

Ariana Kemp, Management Analyst  
Global Emergencies and Emerging Risks  
Office of Audits

Shawn P. McKee, P.E., PMP  
Senior Advisor for Construction and Contracts  
Office of Audits



## **HELP FIGHT** FRAUD, WASTE, AND ABUSE

1-800-409-9926

[Stateoig.gov/HOTLINE](https://stateoig.gov/HOTLINE)

If you fear reprisal, contact the  
OIG Whistleblower Coordinator to learn more about your rights.

[WPEAOmbuds@stateoig.gov](mailto:WPEAOmbuds@stateoig.gov)