SIGAR

Special Inspector General for Afghanistan Reconstruction

SIGAR 21-06 Inspection Report

Pol-i-Charkhi Prison Wastewater Treatment Facility: Project Was Generally Completed According to Requirements, but the Contractor Made Improper Product Substitutions and Other Construction and Maintenance Issues Exist

OCTOBER
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October 21, 2020

The Honorable Michael R. Pompeo
Secretary of State

The Honorable Kristen D. Madison
Assistant Secretary for International Narcotics and Law Enforcement Affairs

Ambassador Ross Wilson
U.S. Chargé d'Affaires to Afghanistan

This report discusses the results of SIGAR's inspection of the new wastewater treatment facility at the Pol-i-Charkhi prison in Kabul. In April 2018, the Department of State's Bureau of International Narcotics and Law Enforcement Affairs (INL) awarded a $6.9 million firm-fixed-price contract to Biltek Organizasyon Muhendislik Basin Emlak Reklam Turizm In (Biltek), a Turkish company, to design and build the facility, which was designed to collect and treat sewage generated by 15,000 people. The contract required the construction of four aeration ponds, two settling ponds, two sludge drying beds, influent and effluent lift stations, aeration equipment, lighting, and other auxiliary components. INL and Biltek modified the contract 10 times, increasing the award amount by approximately $4.4 million, increasing the facility's treatment capacity to accommodate 20,000 people, and extending the completion date from July 21, 2019, to December 28, 2019.

During our site visits in June, July, and August 2020, we found that Biltek generally constructed the facility according to design requirements. However, we identified eight construction deficiencies, consisting of two instances of improper product substitution and six instances of equipment not installed as required under the design or contract requirements. We also found that the facility was being used. However, we found safety and maintenance issues, including contaminated drinking water, detached pond liner air vents, and aerators that were not running.

We are making two recommendations in this report. We recommend that the Assistant Secretary for INL (1) direct Biltek to correct the eight construction deficiencies identified in the report before the 1-year warranty on the wastewater treatment facility expires on April 14, 2021; and (2) advise Biltek and the current operation and maintenance contractor, Kabul Cummins Technical Services Co., of the six remaining safety and maintenance issues—detached pond liner air vents, usage of the temporary septic tank, contaminated drinking water, lack of personal protective equipment, inadequate lighting in the bar screen chamber, and improperly working aerators—so it can take whatever action it deems appropriate to correct them.

We provided a draft of this report to INL for review and comment. INL provided written comments, which are reproduced in appendix IV. INL stated that it generally agreed with our findings and that "several issues have already been addressed and corrected" since our last site visit. INL partially agreed with both recommendations. For recommendation 1, INL said since our last site visit, some deficiencies had been addressed. For recommendation 2, INL said both Biltek and Kabul Cummins Technical Services Co. are responsible for correcting these items, and INL instructed them to do so. INL said it will provide us with an update on both recommendations once the deficiencies and issues are resolved.

We conducted this inspection under the authority of Public Law No. 110-181, as amended, and the Inspector General Act of 1978, as amended; and in accordance with the *Quality Standards for Inspection and Evaluation*, published by the Council of the Inspectors General on Integrity and Efficiency.

John F. Sopko
Special Inspector General
for Afghanistan Reconstruction

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ABBREVIATION

INL	Bureau of International Narcotics and Law Enforcement Affairs

Pol-i-Charkhi prison is Afghanistan's largest correctional facility. Located in Kabul Province just east of the city, the prison was built in 1973 and originally designed to hold about 5,000 inmates. Photo 1 shows an aerial view of the prison.

Photo 1 - Aerial View of Pol-i-Charkhi Prison

Source: INL, December 16, 2012.

Years of overcrowding and poor maintenance have taxed the Pol-i-Charkhi prison's infrastructure. By the spring of April 2018, the leach field for the prison's sewer system was overflowing and not functioning properly.[1] To address the issue with the leach field and provide a more permanent solution, the Department of State's Bureau of International Narcotics and Law Enforcement Affairs (INL) awarded a $6.9 million firm-fixed-price contract on April 6, 2018, to the Turkish company Biltek Organizasyon Muhendislik Basin Emlak Reklam Turizm Inc. (Biltek) to design and build a new wastewater treatment facility at the prison.[2] The contract requirements included the construction of four aeration ponds, two settling ponds, two sludge drying beds, a chlorination building, influent and effluent lift stations, aeration equipment, lighting, and other components, such as an administration building, a power distribution system, and potable water supply system.[3] INL issued

[1] A leach field, also referred to as a drain field, is part of a wastewater disposal system that removes impurities from wastewater.

[2] Contract no. 19AQMM18C0074.

[3] An influent lift station pumps untreated wastewater from the prison complex to the aeration ponds. An effluent lift station pumps the treated wastewater from the chlorine contact tank (where a chlorine solution is injected into the tank, disinfecting the processed wastewater and killing bacteria to make it safe for disposal or irrigation) outside the prison compound, where it is absorbed into the ground. A lift station moves fluid from a lower elevation to a higher elevation.

Biltek a notice to proceed on May 27, 2018, and the original period of performance called for the project to be completed by July 21, 2019.[4]

The new facility was designed to collect and treat sewage generated by 15,000 people in a secure and sustainable manner, flowing from the main prison and other buildings (see appendix II for the layout of the prison and new wastewater treatment facility).

INL and Biltek modified the contract 10 times, increasing the award amount by approximately $4.4 million and extending the completion date by about 5 months to December 28, 2019. The modifications also called for increasing the facility's treatment capacity to accommodate sewage from 20,000 people, building a new guard tower, and installing new wastewater piping to connect the prison's hospital and female prison to the new treatment facility.

Once construction was completed, INL, Biltek, and the Afghan government's Office of Prison Affairs conducted a two-part final inspection of the facility. The first inspection took place on December 23, 2019, and included a final inspection of the influent lift station, settling ponds, aerators, chlorination building, and administration building.[5] The second inspection took place on January 14, 2020, and included the electrical lines, water tower, and wastewater piping to the female prison and hospital. The January 2020 inspection also included a review of the status of deficiencies cited in the December inspection. The inspection team noted that the construction was acceptable and complete; however, due to additional work added in 2020, the 1-year warranty for the construction began on April 15, 2020.

The objectives of this inspection were to determine whether (1) the design and construction of the wastewater treatment facility was completed in accordance with contract requirements and applicable construction standards, and (2) the facility is being used and maintained.

We conducted our work in Kabul, Afghanistan, and Arlington, Virginia, from June 2019 through September 2020, in accordance with the *Quality Standards for Inspection and Evaluation*, published by the Council of the Inspectors General on Integrity and Efficiency. The engineering assessment was conducted by our professional engineers in accordance with the National Society of Professional Engineers' *Code of Ethics for Engineers.* Appendix I has a discussion of our scope and methodology.

CONSTRUCTION OF POL-I-CHARKHI PRISON'S WASTEWATER TREATMENT FACILITY GENERALLY MET CONTRACT REQUIREMENTS, BUT BILTEK MADE IMPROPER PRODUCT SUBSTITUTIONS AND DID NOT ADHERE TO ALL REQUIREMENTS

We conducted eight site visits to the Pol-i-Charkhi wastewater treatment facility between June and August 2020, and found that the construction generally met contract requirements and applicable construction standards.[6] Biltek completed all system components, including the four aeration ponds, two settling ponds, and two sludge drying beds. However, we found two instances of improper product substitution and six instances where equipment was not installed as required under the design or contract requirements. Appendix III contains details about these eight deficiencies.

[4] INL used its third-party oversight contractor, Tigerswan, to provide quality assurance of Biltek's construction of the wastewater treatment facility. Tigerswan was responsible for making sure the work was completed in accordance with all contract requirements and providing INL with daily, weekly, and monthly progress reports.

[5] Aerators are electrically powered devices that float on the surface of the facility's wastewater. They inject air into the wastewater, enabling bacteria to break down the sewage.

[6] We timed our site visits to ensure that any deficiencies we identified could be corrected while the work was still under warranty.

Biltek Improperly Substituted Roof Materials and Mesh Screens

Biltek improperly substituted materials in two places within the wastewater treatment facility. First, an Iranian firm made the exterior metal sheets near the roof of the well house building, even though Biltek's contract explicitly prohibits the use of Iranian-made materials in the facility because Iran is subject to U.S. economic sanctions. Second, Biltek did not use stainless steel mesh screens inside the effluent lift station, as required to prevent rust.[7] During our inspections, we found rust on the screens, indicating that Biltek did not use stainless steel. Rusty screens could disintegrate and allow debris to enter the pumps, causing damage and reducing the pumps' ability to dispose of the treated wastewater. We brought this issue to INL's attention during a September 2020 meeting so the bureau could immediately take corrective action.

Biltek Did Not Install All Equipment as Required by the Approved Design or Contract Requirements

We found six other instances where Biltek improperly installed equipment. For example, the contract required Biltek to install 25-ampere circuit breakers in the four electrical panels that control the facility's aerators. However, we found that Biltek installed 40-ampere circuit breakers instead. Without the correct breakers, more electricity may flow through the wires than they can safely handle, leading to an excessive rise in a wire's temperature and fires or equipment failure.

Biltek also improperly routed a fuel pipe through a concrete containment wall. The contract's design drawing specifically instructed that the fuel pipe entering and leaving the 6,200-liter (1,638-gallon) fuel tank not go through the structure's concrete containment wall. Instead, according to the design, the pipe was to be routed over the top of the wall. We found that Biltek routed the pipe through the concrete wall in two locations. This makes it harder to disconnect or replace the pipe if necessary. The improper construction also limits the expansion or contraction of the fuel pipe that occurs during temperature changes or movement from site settlement or earthquakes, making the pipe susceptible to breaking and leaking fuel.

In a final example of Biltek's failure to conform to design or contract requirements, Biltek did not construct the tower for the water storage tank as required. Specifically, the contract required the installation of an elevated 13,000-liter (3,434-gallon) water storage tank that sits atop a 15-meter- (49.2-foot)-tall steel tower. The contract required the water tower to be grounded by a 25-millimeter (.98-inch) copper cable that protects the tank and its sensors from damage due to lightning strikes. We found that Biltek did not ground the water tower, thereby increasing the chance that a lightening could damage the sensors that control the well pump's operation.[8] Appendix III contains additional details about these and the remaining deficiencies.

THE WASTEWATER TREATMENT FACILITY IS BEING USED, BUT SAFETY AND MAINTENANCE ISSUES EXIST

We found the Pol-i-Charkhi prison wastewater treatment facility was collecting and treating sewage from various locations, including prison blocks No. 1 through 4. However, we also discovered various safety and maintenance issues, including contaminated drinking water, an exposed temporary septic tank that was still in use, and parts of the aeration pond liner that were detached, leaving the ground underneath susceptible to wastewater contamination.

[7] The mesh screens prevent debris from going through the suction pipes before the effluent pumps move the chlorinated wastewater.

[8] In comments to our preliminary findings, INL stated that this deficiency has been corrected. However, INL did not provide evidence of the correction.

The Facility Is Operating, but Its Transfer to the Afghan Government for Operation Was Delayed

We found the wastewater treatment facility was being used. However, at the time of our site visits, the facility had not completed a full wastewater treatment cycle because it began operating 5 months later than planned—the same amount of time needed for a full treatment cycle. The delay occurred because in late 2019, the Office of Prison Affairs informed INL that Block No. 8 and the kitchen building, which were not included in the original construction contract, also needed to be connected to the facility. In February 2020, Biltek was subcontracted to perform this work.[9]

INL intended to hand over the wastewater treatment facility to the Afghan government after prison operation and maintenance staff was trained to run the new facility. However, according to INL officials, a number of issues arose between late 2019 and early 2020 that prevented training from taking place and transferring the facility. In addition to the 5-month operational delay, the Afghan government restructured the directorate responsible for the country's prisons and detention centers, and the prison official responsible for working with INL to train staff was replaced with someone unfamiliar with the new facility and staff training requirements.[10] Finally, work throughout Afghanistan was suspended in early 2020 because of the COVID-19 pandemic.

To deal with these delays, on July 13, 2020, Biltek was awarded a 2-month, $39,805 subcontract to operate the facility in the summer of 2020.[11] Subsequently, on September 1, 2020, INL issued a 1-year, $598,400 contract to Kabul Cummins Technical Services Co., an Afghan firm, to take over operational responsibilities from Biltek and train Afghan staff. Under both awards, this work included operation and maintenance management 24 hours a day, 7 days a week, response to emergencies or blockages within 1 hour, preventive or corrective maintenance of all equipment, and keeping records of operations, maintenance, training, and inspections. The Kabul Cummins Technical Services Co. award also included a plan to train Afghan officials from the Office of Prison Affairs to run the facility.

The Treatment Facility Has Safety and Maintenance Issues

During our eight site visits, we found multiple safety and maintenance issues, including contaminated drinking water, detached pond liner air vents, and aerators that were not running.

We provided a sample of tap water from the administrative building's bathroom to the Danish Committee for Aid to Afghan Refugees, which analyzed its quality. The results showed an unacceptable level of e-Coli bacteria in the water sample. Drinking water containing e-Coli is not safe for human consumption because it could lead to health issues.

We also found that Biltek had not removed an exposed septic tank used by the company's temporary office and housing area occupied during construction of the wastewater treatment facility (see photo 2). The tank is next to the well house, and we found sewage spilled on the ground. Because the temporary office area is still in use, the temporary septic tank requires continued pumping, which causes the spilled sewage. Spills this close to the water well could potentially contaminate the water supply, which could be a contributing cause for the contaminated drinking water we found when we tested the tap water in the newly constructed administration building.

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[9] Biltek's subcontract was issued under INL's Corrections System Support Program, prime contract #SAQMMA17F0502 to PAE Government Services Inc.

[10] In early 2020, the Afghan government restructured the General Directorate for Prisons and Detention Centers to form the Office of Prison Affairs.

[11] Biltek's subcontract was issued under INL's Corrections System Support Program, prime contract # SAQMMA17F0502 to PAE Government Services Inc.

In addition, during the treatment process, wastewater flows into each of the four aeration ponds through a secure underground piping system. The ponds are about 5 meters (16.4 feet) deep and have waterproof liners that prevent contaminated wastewater from entering the ground. The liners have air vents evenly spaced near the top of the aeration ponds, according to the design. We verified that Biltek installed these air vents in the correct locations. However, we found that some were detached from the pond liner (see photo 3). This leaves the ground underneath the vent covers susceptible to wastewater infiltration, which could possibly contaminate groundwater. According to emails between INL officials in Washington, D.C., and Kabul, they are aware of the problems with the pond liners and requested that Biltek make appropriate repairs.

Photo 2 - Temporary Septic Tank Still in Use

Source: SIGAR, July 5, 2020.

Photo 3 - Detached Pond Liner Air Vent

Source: SIGAR, July 12, 2020.

During our site visits, we also found that some staff were not wearing safety masks or eye protection, and that the administration building did not have the required personal protective equipment for staff, such as a first aid kit, life preserver, rope, rubber gloves, masks, and goggles, as required under the contract. Lack of proper protective equipment exposes staff to potential health risks, such as poisoning, skin damage, and respiratory issues. We were unable to determine whether Biltek provided this safety equipment, as required, and they were subsequently pilfered, or whether Biltek did not provide them.

We found inadequate lighting for nighttime operations at the bar screen chamber. According to the operation and maintenance supervisor, the staff cleans this area every 3 hours. During our site visit on July 5, nonpermanent lighting was placed in the bar screen area. However, when we returned the next day, Biltek had removed this lighting. The operation and maintenance subcontract awarded to Biltek states that safe working practices are important, and the facility must run in a safe, secure, humane, and sustainable manner. Lack of proper lighting at night creates a safety hazard for staff cleaning the bar screen chamber.

Finally, each of the four aeration ponds has seven aerators that float on the surface. An aerator consists of a motor suspended above water by two floating pontoons. The motor of the electrically powered aerator has an attached tube that injects air into the wastewater, enabling bacteria to break down the sewage. Aerators should be operating at all times.

However, during our site visits, we found 8 of the 28 aerators were not running.[12]

CONCLUSION

Biltek generally met contract and design requirements when constructing the Pol-i-Charkhi prison's wastewater treatment facility. However, the eight instances of improper product substitution or equipment installation that

[12] The aerators that were not running were numbers 1, 3, and 7 in aeration pond 2, and numbers 1, 3, 4, 5, and 6 in aeration pond 3. In response to our preliminary findings, INL stated that the aerators are now working properly. However, INL did not provide support for its assertion.

we found call for immediate remediation by INL and the contractor. In addition, the safety and maintenance issues we identified, including contaminated drinking water, detached pond liner air vents, and aerators that were not running, pose unwarranted risks to staff and affect the facility's ability to process wastewater.

RECOMMENDATIONS

To protect U.S. taxpayers' investment in the Pol-i-Charkhi prison's new wastewater treatment facility and improve safety conditions at the site, we recommend that the Assistant Secretary for INL take the following actions and report the results back to SIGAR within 90 days:

1. **Direct Biltek to correct the eight construction deficiencies identified in the report before the 1-year warranty on the wastewater treatment facility expires on April 14, 2021.**
2. **Advise Biltek and the current operation and maintenance contractor, Kabul Cummins Technical Services Co., of the six remaining safety and maintenance issues—detached pond liner air vents, usage of the temporary septic tank, contaminated drinking water, lack of personal protective equipment, inadequate lighting in the bar screen chamber, and improperly working aerators—so it can take whatever action it deems appropriate to correct them.**

AGENCY COMMENTS

We provided a draft of this report to INL for review and comment. INL provided written comments, which are reproduced in appendix IV. INL stated that it generally agreed with our findings and that "several issues have already been addressed and corrected" since our last site visit. INL partially agreed with both recommendations.

Regarding recommendation 1, INL partially agreed and said that since our last site visit, "some of the purported deficiencies have been addressed," specifically deficiency number 2—Biltek installed the wrong circuit breakers in four aerator control panels—and number 7—Biltek did not install air vents in the roofs of the staff and chlorination buildings. However, INL did not provide any further information or evidence regarding how these deficiencies were corrected. For the remaining deficiencies, INL said it will direct Biltek to make the appropriate corrections and update us when resolved. INL also noted that Biltek's 1-year warranty expires on April 14, 2021. Based on INL's comment, we updated the warranty expiration date in the report.

INL also partially agreed with recommendation 2 and said both Biltek and Kabul Cummins Technical Services Co. are responsible for correcting these items. INL stated that it instructed both contractors to correct the safety and maintenance issues. In response to this comment, we changed our recommendation to include Biltek.

INL also said its third-party monitoring team, Tigerswan, observed that "construction personnel" had access to and wore personal protective equipment. We did not find an issue with equipment for construction personnel. Rather, we found that the administration building did not have the required personal protective equipment for staff, such as first aid kits, life preservers, rope, rubber gloves, masks, and goggles, as required under the contract. Lack of proper protective equipment exposes staff to potential health risks, such as poisoning, skin damage, and respiratory issues. Additionally, INL said water contamination should not be an issue because the facility now has a fully functional chlorination system, but the bureau is "awaiting the results of the water test." INL said it will update us on the resolution of the issues listed in recommendation 2.

APPENDIX I - SCOPE AND METHODOLOGY

This report provides the results of SIGAR's inspection of the new wastewater treatment facility at the Pol-i-Charkhi prison in Kabul. The objectives of this inspection were to determine whether (1) the design and construction of the wastewater treatment facility was completed in accordance with contract requirements and applicable construction standards, and (2) the facility is being used and maintained. Specifically, we

- reviewed contract documents, design submittals, and other relevant project documentation;
- interviewed officials with the Afghan government's Office of Prison Affairs concerning the project's construction, use, and maintenance; and
- conducted site visits to the facility on June 24, 25, and 29, 2020; July 5, 7, 12, and 27, 2020; and August 13, 2020.

We did not rely on computer-processed data in conducting this inspection. However, we considered compliance with laws and indicators of fraud, other illegal acts, and abuse, and their potential impact.

In December 2014, SIGAR entered into a cooperative agreement with Afghan civil society partners. Under this agreement, our Afghan partners conduct specific inspections, evaluations, and other analyses. In this regard, Afghan engineers inspected the facility in June, July, and August 2020. We developed a standardized engineering evaluation checklist covering items required by the contract. The checklist required our partners to analyze the contract documents, scope of work, technical specifications, and design drawings. We compared the information our Afghan civil society partners provided to accepted engineering practices, relevant standards, regulations, laws, and codes for quality and accuracy.

In addition, as part of our monitoring and quality control process, we

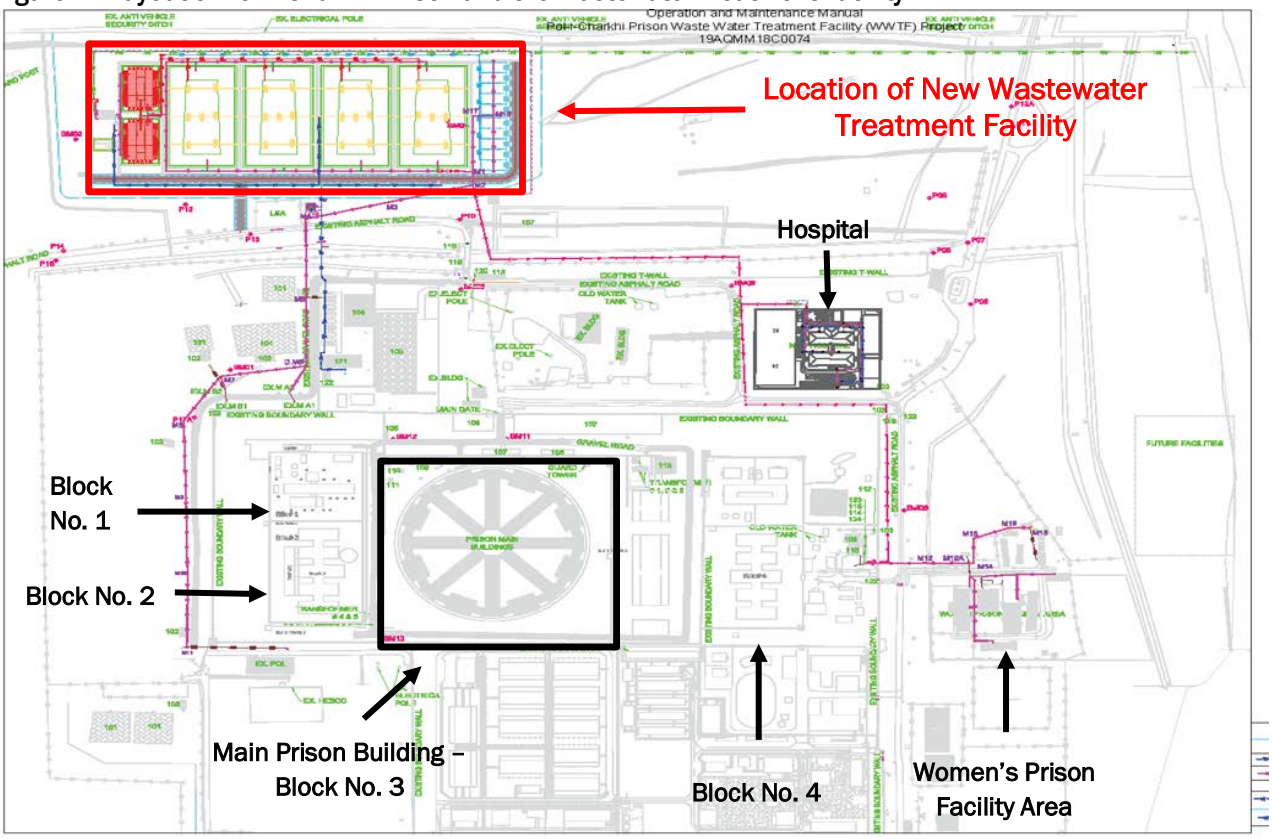
- met with our Afghan partner engineers to ensure that the inspection's planning and approach were consistent with the objectives of our inspection and the terms of our cooperative agreement;
- attended periodic meetings with our partners, and conducted our normal entrance and exit conferences with agency officials;
- discussed significant inspection issues with our partners;
- referred any potential fraud or illegal acts to SIGAR's Investigations Directorate, as appropriate;
- monitored our partners' progress in meeting milestones and revised contract delivery dates as needed; and
- conducted oversight of our partners in accordance with SIGAR's policies and procedures to ensure that their work resulted in impartial, credible, and reliable information.

We conducted our inspection work in Kabul, Afghanistan, and Arlington, Virginia, from June 2019 through September 2020, in accordance with the *Quality Standards for Inspection and Evaluation* January 2012, Council of the Inspectors General on Integrity and Efficiency. Our professional engineers conducted the engineering assessment in accordance with the National Society of Professional Engineers' *Code of Ethics for Engineers*. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our inspection objectives. We conducted this inspection under the authority of Public Law No. 110-181, as amended, and the Inspector General Act of 1978, as amended.

APPENDIX II - LAYOUT OF POL-I-CHARKHI PRISON AND THE WASTEWATER TREATMENT FACILITY

Figure 1 shows the general layout of Pol-i-Charkhi prison and the new wastewater treatment facility.

Figure 1 - Layout of Pol-i-Charkhi Prison and the Wastewater Treatment Facility



Source: "Final Record As-Built Drawing of Pol-i-Charkhi Prison Wastewater Treatment Plant," December 31, 2019, Biltek Organizasyon Muhendislik Basin Emlak Reklam Turizm In.

APPENDIX III - DEFICIENCIES IDENTIFIED AT POL-I-CHARKHI PRISON'S WASTEWATER TREATMENT FACILITY

Table 1 describes the construction deficiencies we identified.

Table 1 - Construction Deficiencies at the Wastewater Treatment Facility

Construction Deficiency	Description
1. Biltek improperly routed a pipe through the concrete containment wall in two locations.	The contract's design drawing required a solid concrete wall around the 6,200-liter (1,638-gallon) fuel tank to contain a fuel spill or leak. The drawing specifically instructed that the fuel pipe entering the tank from the fill station and the fuel pipe leaving the tank to supply the generator should not go through the concrete containment wall, and instead be routed over the top of the wall. However, Biltek routed the pipe through the wall in two locations (see photo 5 for an example of this in one location). This makes it harder to disconnect or replace the pipe if necessary. Additionally, this inflexible penetration limits the expansion and contraction of the fuel pipe that occurs during temperature changes, movement from site settlement, or earthquakes, which make the pipe susceptible to breaking, possibly resulting in a fuel leak.
2. Biltek installed the wrong circuit breakers in four aerator control panels.	Biltek was required to install 25-ampere circuit breakers in the electrical panels that control the ponds' aerators. However, we found that Biltek installed 40-ampere circuit breakers.[a] Without the correct breakers, more electricity may flow through the wires than they can safely handle, leading to an excessive rise in a wire's temperature and fire or equipment failure.

Photo 4 - Fuel Pipe Improperly Routed through Containment Wall

Source: SIGAR, June 24, 2020.

3. Biltek did not ground the water storage tank's steel support structure.

The contract included the installation of an elevated 13,000-liter (3,434-gallon) water storage tank. The tank sits atop a 15—meter-(49.2-foot)-tall steel tower (see photo 7). The design drawings required the water tower to be grounded by a 25-millimeter (0.98-inch) copper cable that protects the tank and its sensors from damage due to lightning strikes.[b] We found that Biltek did not ground the water storage tank's steel support structure. Not doing so increases the chance lightning could damage the sensors that control the well pump's operation.

Photo 5 - New Water Tower and Well House

Source: SIGAR, July 5, 2020.

4. Biltek did not seal an electrical conduit connection.

Design documents required that all electrical connections be sealed so wiring is not exposed to the elements. We found that Biltek had not sealed the connection between the electrical conduit on the water tank and a junction box. This unprotected gap leaves essential wiring susceptible to environmental deterioration or damage. If left unresolved, this could damage the wiring for electrical sensors that control the water supply to the storage tank.

5. Biltek did not install a pressure gauge in the well house piping system.

Biltek installed the check valve, gate valves, air relief valve, and flow meter in the well house piping system. However, during our site visit, we determined that Biltek did not install the required pressure gauge (see photo 8), which shows the well pump's operating pressure. Without a pressure gauge, maintenance staff cannot confirm that the well pump is operating properly and could have problems troubleshooting.

Photo 6 - Missing Pressure Gauge in Well House Pipe

Source: SIGAR, July 5, 2020.

6. Biltek installed items made by a prohibited source on the well house.

The contract explicitly prohibits the use of Iranian-made materials in the facility. We found that the exterior metal sheets near the roof of the well house were made by Kashan Amir Kabir Steel Co., an Iranian firm. Because Iran is subject to U.S. economic sanctions, this purchase also violates the Federal Acquisition Regulations.[c]

7.	Biltek did not install air vents in the roofs of the staff and chlorination buildings.	The design drawings for the staff and chlorination buildings required the installation of air vents with insect screens in the roofs for attic space ventilation.[d] We found that Biltek did not install air vents on either building. Not having these vents allows moisture to accumulate and condense on the roof's metal framing and insulation, which causes rust and reduces the insulation's capabilities.
8.	Mesh screens inside the effluent lift station were rusting.	At the end of the wastewater treatment process, the treated water flows into the effluent lift station, where it is pumped out for final disposal.[e] We found that the mesh screens on the effluent pumps' suction pipes were already rusting.[f] The design required the mesh screens to be made of stainless steel because it does not rust. The rust on the mesh screens indicates Biltek did not use stainless steel. The rusty screens could disintegrate and allow debris to enter the pumps, possibly damaging them and thereby reducing the disposal of treated wastewater.

Source: SIGAR engineering analysis.

Notes:

[a] The four locations were control panel CP-04, found on As-Built Drawing WW-E-07; control panel CP-04A, found on As-Built Drawing WW-E-08; control panel CP-05, found on As-Built Drawing WW-E-09; and control panel CP-05A, found on As-Built Drawing WW-E-10.

[b] As-Built Drawing WT-E-01, note 1.

[c] The Federal Acquisition Regulations (FAR) prohibits U.S. government contractors from obtaining goods and services from Iranian companies without authorization from the Department of the Treasury's Office of Foreign Assets Control. See FAR 52.225-13, "Restrictions on Certain Foreign Purchases," June 2008.

[d] Design drawing sheets LP-A-05 and CH-A-03.

[e] The effluent lift station pumps the treated wastewater to a location outside the prison compound for final disposal, either on the ground or for irrigation.

[f] The mesh screens prevent debris from going through the suction pipes before the effluent pumps move the wastewater to a location outside the prison compound for final disposal.

United States Department of State

Washington, D.C. 20520

October 14, 2020

Mr. Jeffery C. Brown
Deputy Assistant Inspector General for Audits and Inspections
Special Inspector General for Afghanistan Reconstruction
1550 Crystal Drive, Suite 900
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Dear Mr. Brown:

The Department of State welcomes the opportunity to comment on this draft Special Inspector General for Afghanistan Reconstruction (SIGAR) report entitled, "Pol-i-Charkhi Prison Wastewater Treatment Facility: Project Was Generally Completed According to Requirements, but the Contractor Made Improper Product Substitutions and Other Construction and Maintenance Issues Exist" (dated October 2020). The Department respects SIGAR's role in safeguarding U.S. taxpayer investment, and we share your goals of implementing programs free from waste, fraud, and abuse.

INL generally agrees with the report findings. However, since the time of SIGAR's last inspection visit, several issues have already been addressed and corrected. Most critically, the chlorination system is fully operational.

Responses to Recommendations

Recommendation 1: Direct Biltek to correct the eight construction deficiencies identified in the report before the 1-year warranty on the wastewater treatment facility expires on December 31, 2020.

INL Response (October 2020): INL would like to note that the 1-year warranty on the Biltek work expires on April 14, 2021. INL partially agrees with this recommendation. INL partially agrees that there were some construction deficiencies, but not eight. Since the last SIGAR inspection visit, some of the purported deficiencies have been addressed. Specifically, deficiencies seven and two. However, INL will direct Biltek to correct the remaining six deficiencies and will update SIGAR once the deficiencies have been resolved.

Recommendation 2: Advise the current operation and maintenance contractor, Kabul Cummins Technical Services Co., of the six remaining safety and maintenance issues—detached pond liner air vents, usage of the temporary septic tank, contaminated drinking water, lack of personal protective equipment (PPE), inadequate lighting in the bar screen chamber, and improperly working aerators—so it can take whatever action it deems appropriate to correct them.

INL Response (October 2020): INL partially agrees with this recommendation. INL agrees that the aforementioned safety and maintenance issues should be addressed, however, BilTek, as the construction contractor, is also responsible for correcting some of these items, in addition to KCT. INL has instructed both Biltek and KCT to address these issues. Additionally, on every visit of INL's third party monitoring team, construction personnel were in fact wearing personal protective equipment and had access to surplus PPE. Lastly, while we are still awaiting the results of the water test, with a fully functional chlorination system, water contamination should not be an issue. INL will update SIGAR on the resolution of these issues.

The Department of State appreciates SIGAR's thorough examination of U.S. foreign assistance programming in Afghanistan's corrections sector. INL looks forward to continuing to work with SIGAR and other relevant authorities on these issues.

Sincerely,

Erin M. Barclay

Erin M. Barclay
Executive Director
Bureau of International Narcotics
and Law Enforcement Affairs

APPENDIX V - ACKNOWLEDGMENTS

Adam Bonfanti, Senior Audit Manager

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Shahanshah Shirzay, Civil Engineer

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under project code SIGAR-I-060.

SIGAR's Mission

The mission of the Special Inspector General for Afghanistan Reconstruction (SIGAR) is to enhance oversight of programs for the reconstruction of Afghanistan by conducting independent and objective audits, inspections, and investigations on the use of taxpayer dollars and related funds. SIGAR works to provide accurate and balanced information, evaluations, analysis, and recommendations to help the U.S. Congress, U.S. agencies, and other decision-makers to make informed oversight, policy, and funding decisions to:

- improve effectiveness of the overall reconstruction strategy and its component programs;
- improve management and accountability over funds administered by U.S. and Afghan agencies and their contractors;
- improve contracting and contract management processes;
- prevent fraud, waste, and abuse; and
- advance U.S. interests in reconstructing Afghanistan.

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