



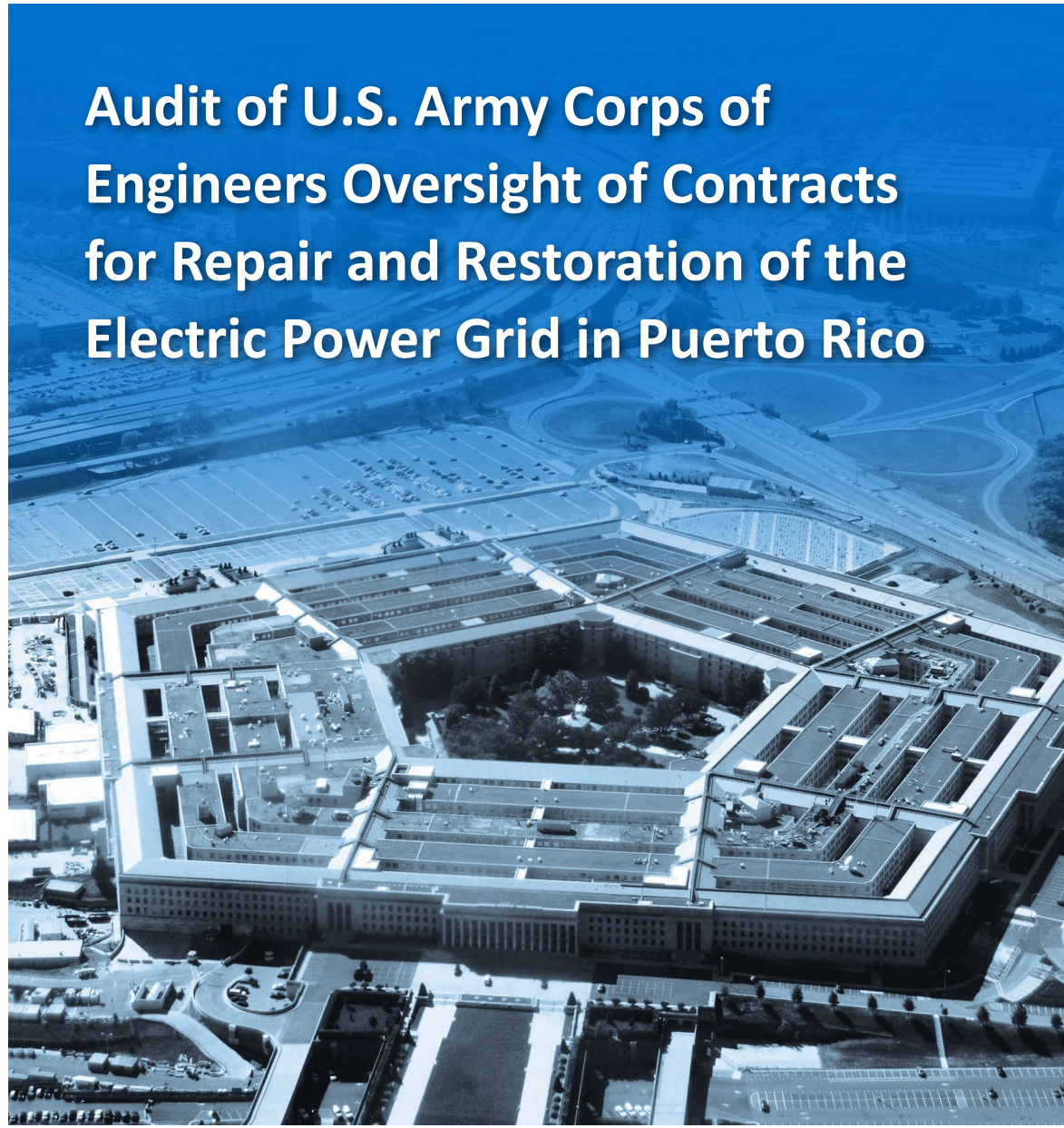
INSPECTOR GENERAL

U.S. Department of Defense

SEPTEMBER 30, 2019



Audit of U.S. Army Corps of Engineers Oversight of Contracts for Repair and Restoration of the Electric Power Grid in Puerto Rico



INTEGRITY ★ INDEPENDENCE ★ EXCELLENCE





Results in Brief

Audit of U.S. Army Corps of Engineers Oversight of Contracts for Repair and Restoration of the Electric Power Grid in Puerto Rico

September 30, 2019

Objective

We determined whether the U.S. Army Corps of Engineers (USACE) properly monitored contractor labor hours and accurately reviewed and paid invoices for the Puerto Rico power grid repair and restoration contracts in accordance with Federal and DoD guidance.

Background

On September 20, 2017, Hurricane Maria severely damaged the Puerto Rico power grid and left nearly all of Puerto Rico's 1.5 million electric customers without power or communications. USACE Huntsville awarded two time-and-materials contracts to one contractor for the repair and restoration of the Puerto Rico power grid. Contract W912DY-18-F-0003 (F-0003), awarded on October 15, 2017, was valued at \$505.8 million as of November 2018. Contract W912DY-18-F-0032 (F-0032), awarded on December 1, 2017, was valued at \$276.4 million as of November 2018.

USACE Jacksonville awarded a time-and-materials contract to a second contractor for the repair and restoration of the Puerto Rico power grid. Contract W912EP-18-C-0003 (C-0003), awarded on October 18, 2017, was valued at \$523 million as of the contract modification in May 2018.

According to Federal and DoD guidance, time-and-materials contracts are the least favorable Government contract type because they provide no positive profit

Background (cont'd)

incentive to the contractor for cost control or labor efficiency. The Federal Acquisition Regulation requires appropriate Government surveillance of contractor performance under time-and-materials contracts to give reasonable assurance that efficient methods and effective cost controls are being used by the contractor. The Federal Acquisition Regulation also states that a contractor is responsible for accounting for costs appropriately and for maintaining records, including supporting documentation, adequate to demonstrate that costs claimed have been incurred, are allocable to the contract, and comply with applicable cost principles. The contracting officer may disallow all or part of claimed costs that are inadequately supported or improperly charged.

Findings

We determined that USACE Huntsville did not adequately monitor contractor labor hours worked or accurately review invoices to ensure contractor invoices corresponded to actual work performed on its two power grid repair and restoration contracts. Specifically, USACE Huntsville contracting officials did not:

- provide appropriate surveillance of contractor performance to verify that labor hours billed were accurate;
- obtain adequate supporting documentation for labor hours billed before approving invoices for payment, such as individually certified timesheets, support for work that employees performed before their arrival in Puerto Rico, and support for work performed and overtime charged that was not specifically for power grid repair and restoration work;
- verify whether contractor employees met qualifications for labor categories included in the contracts before approving invoices for payment; or
- verify whether contractor employees exceeded the weekly labor hours allowed by USACE policy before approving invoices for payment.



Results in Brief

Audit of U.S. Army Corps of Engineers Oversight of Contracts for Repair and Restoration of the Electric Power Grid in Puerto Rico

Findings (cont'd)

This occurred because USACE Huntsville contracting officials did not have quality assurance procedures or written invoice review procedures that ensured adequate Government oversight of contractor labor hours worked and adequate documentation from the contractor to support labor hours billed before payment.

As a result, USACE Huntsville did not know whether contractor labor costs paid on 11 invoices, valued at \$258.9 million, were allowable in accordance with the terms of the contracts. Based on our testing of a sample of labor costs, we identified at least \$20.9 million paid by USACE that was unsupported and potentially unallowable.

Additionally, USACE Jacksonville did not adequately monitor contractor labor hours worked or accurately review invoices to ensure contractor invoices corresponded to actual work performed on a third power grid repair and restoration contract. Specifically, USACE Jacksonville contracting officials did not:

- provide appropriate surveillance of contractor performance to verify that labor hours billed were accurate;
- obtain adequate supporting documentation for labor hours billed before approving invoices for payment, such as individually certified timesheets; or
- review contractor labor rates or verify whether contractor employees met labor qualifications included in the contract.

This occurred because USACE Jacksonville contracting officials did not incorporate required elements of a time-and-materials contract into contract C-0003, such as labor qualifications and hourly rates, before approving invoices for payment, in accordance with Federal regulations. In addition, Defense Contract

Audit Agency officials could not provide audit assistance because USACE Jacksonville contracting officials did not incorporate required elements of a time-and-materials contract, such as labor qualifications and required contract clauses, into contract C-0003. Furthermore, USACE Jacksonville contracting officials awarded a time-and-materials contract without determining whether the contractor's accounting system was acceptable, as required by DoD regulations. In addition, USACE Jacksonville contracting officials did not have quality assurance procedures or written invoice review procedures that ensured adequate Government oversight of contractor labor hours worked and adequate documentation from the contractor to support labor hours billed before payment.

As a result, USACE Jacksonville did not know whether contractor labor costs paid on seven invoices, valued at \$61.3 million, were allowable in accordance with Federal regulations or terms of the contract. Based on our testing of labor costs, we identified at least \$29.2 million paid by USACE that was unsupported and potentially unallowable.

Management Comments on the Findings and Our Response

The USACE Commanding General stated that the magnitude of the destruction, complexity of the mission, urgency for Federal action, and degree of human suffering could not be overstated, and that Hurricane Maria in Puerto Rico was not business as usual. The Commanding General also stated that, in this case, life, health, and safety considerations dictated expediency at the expense of established processes. He stated that sustaining the required number of quality assurance personnel was a challenge and USACE provided oversight for contractors in a dynamic environment. The Commanding General



Results in Brief

Audit of U.S. Army Corps of Engineers Oversight of Contracts for Repair and Restoration of the Electric Power Grid in Puerto Rico

Comments of the Findings (cont'd)

stated the repair and restoration of an electrical power grid is not a core USACE mission. The Commanding General explained that the Puerto Rico Electric Power Authority did not have the necessary capability, capacity, or structure to respond to the hurricane damage, and the U.S. Department of Energy did not have the expeditionary tools and resources in place to perform the mission. Therefore, FEMA relied on USACE to restore the power grid. We acknowledged in the report that Hurricane Maria devastated Puerto Rico and the hurricane affected the lives, safety, and health of the island's citizens. We recognized that the hurricane left 1.5 million electric customers without power or communication and knocked down 80 percent of the island's utility poles and all transmission lines.

We recognize the conditions that USACE faced in Puerto Rico and the urgency of the necessary actions. However, proper controls are also important to implement, even in these circumstances. According to the Council of Inspector General's for Integrity and Efficiency, disasters provide unique opportunities for fraud, abuse, and mismanagement, and proper controls and oversight of these contracts are important to ensure the proper use of taxpayer dollars and also to ensure that the proper recipients receive the full benefit and use of Federal funds designated for relief and recovery.

Recommendations

We recommend that the USACE Commanding General develop, implement, and require training on standard operating procedures for time-and-materials contracts that require detailed quality assurance surveillance plans and invoice review procedures, and that the contracts include labor qualifications for all labor categories in the contract and individually certified timesheets from contractors to support labor billed. We also recommend that the USACE Commanding

General initiate a review of all contracting officials' actions on contract C-0003, and, as appropriate, initiate management action to hold them accountable.

We recommend that the Commander of U.S. Army Engineering and Support Center, Huntsville, direct contracting officials to validate all labor and material costs on contracts F-0003 and F-0032, and determine whether they are supportable and allowable in accordance with Federal regulations. If the contractor cannot support the costs, the contracting officers should determine those costs as unallowable and take action to recoup those costs.

We recommend that the Commander of USACE's Jacksonville District direct contracting officials to review all labor and material costs for contract C-0003 and determine whether they are supportable and allowable in accordance with Federal regulations. If contracting officials are unable to determine whether costs are allowable, they should work with Defense Contract Audit Agency officials to develop a total contract cost reduction to reduce total contract costs for contract C-0003.

Management Comments and Our Response

The USACE Commanding General agreed with our recommendations. The Commanding General stated that the USACE Director of Contracting tasked all contracting officers to take a time-and-materials contract training course and agreed to review this DoD Office of Inspector General report and prepare an after action report and provide lessons learned to the contracting community. The Commanding General also stated that the Director of Contracting distributed quality assurance surveillance plan and payment approval and recommendation checklists to be used by contracting officer' representatives. The Director of Contracting



Results in Brief

Audit of U.S. Army Corps of Engineers Oversight of Contracts for Repair and Restoration of the Electric Power Grid in Puerto Rico

Comments (cont'd)

will perform a review of contract C-0003 and make any necessary corrections and recommendations to ensure future responses to contingency operations are executed consistently. Furthermore, the contracting officers are performing an audit of the vouchers and supporting documentation before final payment on the contracts. The Commanding General added that the Defense Contract Audit Agency is assisting USACE and the planned completion of the audit is January 2020.

The USACE Commanding General's comments partially addressed the recommendations; therefore, the recommendations are unresolved. Although the Director of Contracting distributed checklists for the contracting officer representatives and tasked the USACE contracting officers to take a time-and-materials contract training course, the response was not clear on whether the checklists would provide enough information for contracting officials to verify labor hours on contractor invoices on time-and-materials contracts. The Commanding General's comments do

not address requiring specific labor qualifications and requiring contractors to submit individually certified timesheets for labor on all current and future time-and-materials contracts. Additionally, the Commanding General's comments were unclear on whether the Director of Contracting will perform a review of the contracting officials actions associated with contract C-0003 and initiate management action to hold them accountable, as appropriate. Further, the Commanding General's comments were unclear on whether the planned reviews addressed all labor and material costs for contracts F-0003, F-0032, and C-0003 and the planned course of action if contracting officials are unable to determine whether costs are allowable on contract C-0003. The USACE Commanding General should provide comments to the final report by October 30, 2019.

Please see the Recommendations Table on the next page for the status of recommendations.

Recommendations Table

Management	Recommendations Unresolved	Recommendations Resolved	Recommendations Closed
Commanding General, U.S. Army Corps of Engineers	A.1, B.1, B.2		
Commander, U.S. Army Engineering and Support Center, Huntsville	A.2		
Commander, U.S. Army Corps of Engineers, Jacksonville District	B.3		

Please provide Management Comments by October 30, 2019.

Note: The following categories are used to describe agency management's comments to individual recommendations.

- **Unresolved** – Management has not agreed to implement the recommendation or has not proposed actions that will address the recommendation.
- **Resolved** – Management agreed to implement the recommendation or has proposed actions that will address the underlying finding that generated the recommendation.
- **Closed** – OIG verified that the agreed upon corrective actions were implemented.





**INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
4800 MARK CENTER DRIVE
ALEXANDRIA, VIRGINIA 22350-1500**

September 30, 2019

MEMORANDUM FOR AUDITOR GENERAL, DEPARTMENT OF THE ARMY

SUBJECT: Audit of U.S. Army Corps of Engineers Oversight of Contracts for Repair and Restoration of the Electric Power Grid in Puerto Rico (Report No. DODIG-2019-128)

This final report provides the results of the DoD Office of Inspector General's audit. We previously provided copies of the draft report and requested written comments on the recommendations. We considered management's comments on the draft report when preparing the final report. These comments are included in the report.

This report contains recommendations that are considered unresolved because the U.S. Army Corps of Engineers Commanding General's comments did not fully address the recommendations presented in the report.

Therefore, as discussed in the Recommendations, Management Comments, and Our Response section of this report, the recommendations remain open. We will track these recommendations until an agreement is reached on the actions to be taken to address the recommendations, and adequate documentation has been submitted showing that the agreed-upon action has been completed.

DoD Instruction 7650.03 requires that recommendations be resolved promptly. Therefore, please provide us within 30 days your response concerning specific actions in process or alternative corrective actions proposed on the recommendations. Your response should be sent to either followup@dodig.mil if unclassified or rfunet@dodig.smil.mil if classified SECRET.

Please direct questions to [REDACTED]. We appreciate the cooperation and assistance received during the audit.

A handwritten signature in black ink, reading "Theresa S. Hull", is positioned above the printed name.

Theresa S. Hull
Assistant Inspector General for Audit
Acquisition, Contracting, and Sustainment

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Introduction

Objective

We determined whether the U.S. Army Corps of Engineers (USACE) properly monitored contractor labor hours and accurately reviewed and paid invoices for the Puerto Rico power grid repair and restoration contracts, in accordance with Federal and DoD guidance. See Appendix A for the scope, methodology, and prior audit coverage.

Background

On September 20, 2017, Hurricane Maria made landfall in Puerto Rico as a Category 4 storm, with sustained winds of 155 mph, severely damaging power grids and leaving nearly all of Puerto Rico's 1.5 million electric customers without power or communications.¹ Additionally, according to the National Hurricane Center, Puerto Rico was devastated by winds and floods, and Hurricane Maria knocked down 80 percent of the islands utility poles and all transmission lines. According to the National Hurricane Center, Hurricane Maria was the strongest hurricane to make landfall in Puerto Rico since 1928 and ranked as the third costliest hurricane in U.S. history, with an estimated \$90 billion in damages.

According to USACE Puerto Rico power grid repair and restoration contracting documentation, the absence of power on Puerto Rico affected the lives and safety and health of the citizens, specifically critical facilities such as hospitals, police stations, schools and water treatment plants, and left many areas with no water and limited access to food and cash. The President approved major disaster declarations for Puerto Rico on September 20, 2017, and made the Federal Emergency Management Agency (FEMA) available for assistance.

Disaster Relief

The "Robert T. Stafford Disaster Relief and Emergency Assistance Act" (Stafford Act) and the National Response Framework provide guidance for Government officials to use during emergencies.² The Stafford Act authorizes Federal assistance to supplement state and local efforts to save lives and protect property, public health, and safety in any part of the United States. The 2016 National Response Framework is a guide for how the United States responds to all types of disasters and emergencies; the framework describes specific responsibilities

¹ Hurricane Maria hit Puerto Rico just 2 weeks after Hurricane Irma had caused destruction.

² "Robert T. Stafford Disaster Relief and Emergency Assistance Act," United States Code, Title 42, The Public Health and Welfare, Chapter 68, Disaster Relief; and the U.S. Department of Homeland Security, National Response Framework, dated June 2016.

and best practices for managing the incidents. FEMA uses mission assignments to coordinate Federal assistance under the National Response and Recovery Frameworks. The mission assignments are work orders FEMA issues to direct another Federal agency to use that agency's authorities and the resources granted under Federal law in support of state, local, tribal, and territorial government assistance. Under the National Response Framework, USACE is assigned as the primary agency within the DoD for Emergency Support Function #3 - Public Works and Engineering. During disaster and recovery missions, USACE coordinates its capabilities and resources to facilitate the delivery of services, technical assistance, engineering expertise, construction management, and other support to prepare for, respond to, and recover from a disaster or an incident. USACE maintains an inventory of already awarded contracts to support major emergency response missions. These contracts are part of the USACE Advanced Contracting Initiative program, developed and implemented specifically for emergency and disaster scenarios. USACE has advanced contracts in place for temporary roofing, debris removal, and temporary power.

The Department of Energy is assigned as the primary agency for Emergency Support Function #12 - Energy. Under Emergency Support Function #12, the Department of Energy facilitates the restoration of damaged energy systems and components. However, on September 30, 2017, FEMA issued a mission assignment to USACE to assist the Puerto Rico Electric Power Authority with emergency repairs across Puerto Rico. According to the contract documentation, FEMA issued the mission assignment to USACE because the Department of Energy did not have the capacity to manage the power grid restoration work in Puerto Rico. The Puerto Rico Electric Power Authority owns and operates electric generating and distribution facilities serving Puerto Rico. Specifically, FEMA tasked USACE officials to help:

- restore temporary power and lead planning, coordination, and integration efforts in preparation to execute electrical power grid restoration in Puerto Rico due to impacts caused by Hurricane Maria; and
- develop and execute applicable temporary repairs to the electrical grid to allow interim restoration of system segments as directed by FEMA until the electrical grid can be fully restored.

FEMA approved \$2.2 billion in public assistance emergency work for USACE to restore the Puerto Rico power grid.

In response to a congressional request to review the Government’s response to the 2017 hurricanes, the Government Accountability Office (GAO) reported that FEMA and USACE’s role in helping coordinate and assist in the power grid restoration was unprecedented due to the severity of Hurricane Maria’s impact and because the Puerto Rico Electric Power Authority did not have the necessary capability, capacity, or structure to respond.³ The report stated that USACE installed over 2,300 emergency electric generators in Puerto Rico through May 2018. The previous record was 310 generators installed in response to Hurricane Katrina. The report also stated that various factors affected Federal support for the restoration of the power grid, such as getting crews and materials to Puerto Rico. In addition, the GAO found that FEMA did not anticipate or have a plan for power grid restoration, having never helped coordinate major electricity grid restoration before, and USACE did not have a contract in place to begin the restoration immediately. According to the report, USACE’s power grid restoration mission assignment from FEMA ended on May 18, 2018, because power had been restored to approximately 98 percent of Puerto Rico customers and the Puerto Rico Electric Power Authority, with its remaining contractors, had adequate capability to do the remaining work.

Power Grid Restoration Contracts for Time-and-Materials

USACE Huntsville contracting officials awarded two time-and-materials contracts to one contractor, and USACE Jacksonville contracting officials awarded a time-and-materials contract to a second contractor, for the repair and restoration of the Puerto Rico power grid. Under time-and-materials contracts, the Government acquires supplies and services based on actual materials costs and direct labor hours at a specified fixed hourly rate, which includes direct labor, indirect costs, and profit.

Contract W912DY-18-F-0003

On October 15, 2017, USACE Huntsville contracting officials awarded a time-and-materials contract, W912DY-18-F-0003 (F-0003), with an initial award amount of \$240 million. As of the last contract modification on November 26, 2018, the value of the contract had increased to \$505.8 million, with the period of performance ending on June 12, 2018.⁴ The work under the contract was to repair and restore the Puerto Rico power grid. Examples of work to be performed

³ Report No. GAO-19-296, “2017 Hurricane Season: Federal Support for Electricity Grid Restoration in the U.S. Virgin Islands and Puerto Rico,” April 2019.

⁴ Contract value increased after the end date of the period of performance to update the actual cost of Defense Base Act insurance. Defense Base Act insurance provides workers compensation-type insurance coverage for contractor employees performing under Government contracts outside the United States.

included electrical transmission and distribution power grid restoration and re-energization; repair and recommissioning of existing stationary power plants; and equipment evaluation, repair, re-energization, and recommissioning of substations and switching stations.

Contract W912DY-18-F-0032

On December 1, 2017, USACE Huntsville contracting officials awarded a second time-and-materials contract, W912DY-18-F-0032 (F-0032), to the same contractor as contract F-0003, with an initial award amount of \$495 million. Contracting officials stated that the intent was to have multiple contractors participating in the repair and restoration, but the same contractor won both awards during the competitive process. As of the last contract modification on November 26, 2018, the value of the contract had decreased to \$276.4 million, with the period of performance ending on June 12, 2018.⁵ The work under the contract was to repair and restore the Puerto Rico power grid and had the same work requirements as contract F-0003.

Contract W912EP-18-C-0003

On October 18, 2017, USACE Jacksonville contracting officials awarded a time-and-materials contract, W912EP-18-C-0003 (C-0003), with an initial award amount of \$1.3 million. USACE initially awarded \$1.3 million to the contractor for mobilization and, according to USACE contracting officials, to conduct a cost estimate for the power grid repair and restoration work. Subsequent contract modifications added the actual work requirements to repair and restore the power grid. As of the contract modification on May 4, 2018, the value of the contract had increased to \$523 million, with the period of performance ending on May 18, 2018. The objective of the contract was to restore electric power on the Puerto Rico Electric Power Authority power grid. Examples of work to be performed included repair work on the transmission and distribution lines, substation restoration, and clearing and removal of debris.

Task Force Power Restoration

USACE Task Force Power Restoration focused on the execution of repairing the electrical power grid in Puerto Rico. Specific focus areas included executing the South Atlantic Division Task Force Power Restoration mission assignment and providing support to the Puerto Rico Electric Power Authority; developing funding

⁵ According to USACE Huntsville contracting officials, the contract value decreased because USACE Huntsville modified the contract to de-obligate funding that contracting officials previously withheld due to a contract protest.

requirements and executing the assigned mission within budget; and overseeing USACE contracts F-0003, F-0032, and C-0003. Task Force Power Restoration efforts on those contracts were managed from the USACE Huntsville and Jacksonville contracting offices.

Federal Acquisition Regulation Requirements for Time-and-Materials Contracts

According to Federal and DoD guidance, time-and-materials contracts are the least favorable Government contract type because they provide no positive profit incentive to the contractor for cost control or labor efficiency.⁶ The Government assumes the cost risk, benefiting if the actual cost is lower than expected, or losing if the contractor does not complete the work within expected cost. Federal Acquisition Regulation (FAR) 16.601 requires appropriate Government surveillance of contractor performance under time-and-materials contracts to give reasonable assurance that efficient methods and effective cost controls are being used. Either the contracting officer or authorized contract auditor can subsequently disallow costs incurred during the performance of time-and-materials contracts if they find that the costs are not reasonable, allocable, or meet the terms of the contract.

FAR 52.232-7, which was incorporated into contracts F-0003, F-0032, and C-0003, requires contractors to substantiate vouchers (including any subcontractor hours reimbursed at the hourly rate in the schedule) by evidence of actual payment to subcontractors, and by:

- individual daily job timekeeping records,
- records that verify the employees met the qualifications for the labor categories specified in the contract, or
- other substantiation approved by the contracting officer.⁷

In addition, FAR 31.201-2 states that a contractor is responsible for accounting for costs appropriately and for maintaining records, including supporting documentation, adequate to demonstrate that costs claimed have been incurred, are allocable to the contract, and comply with applicable cost principles.⁸ The contracting officer may disallow all or part of claimed costs that are inadequately supported.

⁶ FAR Part 16, "Types of Contracts," Subpart 16.6, "Time and Materials, Labor-Hour, and Letter Contracts," Section 16.601, "Time-and-Materials Contracts," and Defense Procurement and Acquisition Policy Memorandum, "Guidance on Using Incentive and Other Contract Types," April 1, 2016.

⁷ FAR Part 52, "Solicitation Provisions and Contract Clauses," Subpart 52.2, "Text of Provisions and Clauses," Clause 52.232-7, "Payments Under Time-and-Materials and Labor-Hour Contracts."

⁸ FAR Part 31, "Contract Cost Principles and Procedures," Subpart 31.2, "Contracts With Commercial Organizations," 31.201-2, "Determining Allowability."

Defense Contract Audit Agency Responsibilities

DoD Directive 5105.36 designates Defense Contract Audit Agency (DCAA) contract auditors as authorized representatives of the contracting officer to provisionally approve vouchers for payment.⁹ DCAA's incurred cost audits emphasize determining the overall acceptability of the contractor's claimed costs with respect to:

- reasonableness of nature and amount,
- allocability of these costs, and
- compliance with applicable cost limitations or exclusions stated in the contract or the FAR.

The DCAA has sole authority for verifying claimed costs and approving interim payment requests under time-and-materials contracts. The DCAA, as the contract auditor, is authorized to suspend payment of questionable costs and disallow costs during contract performance after the contractor incurred those costs. The DCAA approves interim payment requests subject to final audit, the contract's administrative contracting officer (ACO) approves the final payment request on the contract, and the contracting officer's representative (COR) coordinates with the DCAA if any cost verification is needed to support contract surveillance.

The DCAA conducts audits of incurred costs claimed by a contractor for the previous year. The DCAA generally performs these incurred cost audits on a contractor-wide basis (as opposed to on individual contracts), and the DCAA's primary objective is to examine the contractor's cost representations and express an opinion as to whether those incurred costs are reasonable, applicable to the contract, valid in the circumstances, and not prohibited. In addition, the DCAA will determine whether the contractor's accounting system is adequate for subsequent cost determinations that may be required for current or future contracts.

Review of Internal Controls

DoD Instruction 5010.40 requires DoD organizations to implement a comprehensive system of internal controls that provides reasonable assurance that programs are operating as intended and to evaluate the effectiveness of the controls.

We identified internal controls weaknesses in the oversight and administration of the USACE power grid repair and restoration contracts. USACE contracting officials did not perform and document oversight of contractor labor hours worked in a manner that would allow contracting officials to determine whether contractor labor hours billed were accurate. USACE contracting officials also did not obtain

⁹ DoD Directive 5105.36, "Defense Contract Audit Agency," January 4, 2010.

adequate supporting documentation for labor hours billed, verify whether contractor employees met qualifications for labor categories proposed, or verify whether contractor employees exceeded the weekly labor hours allowed by USACE policy before approving invoices for payment. In addition, USACE contracting officials did not include labor qualifications for all labor rates in the contracts. Furthermore, USACE contracting officials awarded a time-and-materials contract without determining whether the contractor's accounting system was acceptable. We will provide a copy of the report to the senior officials responsible for internal controls in USACE.

Finding A

USACE Huntsville Did Not Adequately Monitor or Review Contractor Labor Hours Before Payment

USACE Huntsville paid invoices without verifying that labor costs were accurate or supportable on two Puerto Rico power grid repair and restoration contracts. Contracting officials did not adequately monitor contractor labor hours worked or accurately review invoices to verify that contractor invoices corresponded to actual work performed. Specifically, contracting officials did not:

- provide appropriate surveillance of contractor performance to verify that labor hours billed were accurate;
- obtain adequate supporting documentation for labor hours billed before approving invoices for payment;
- verify whether contractor employees met qualifications for labor categories included in the contracts before approving invoices for payment; or
- verify whether contractor employees exceeded the weekly labor hours allowed by USACE policy before approving invoices for payment.¹⁰

This occurred because USACE Huntsville contracting officials did not have quality assurance procedures or written invoice review procedures that ensured adequate Government oversight of contractor labor hours worked and adequate documentation from the contractor to support labor hours billed before payment.

As a result, USACE Huntsville contracting officials did not know whether contractor labor costs paid on 11 invoices, valued at \$258.9 million, were allowable in accordance with Federal regulations or terms of the contracts.¹¹ Based on our testing of labor costs, we identified at least \$20.9 million paid by USACE that was unsupported and potentially unallowable.

USACE Huntsville Paid Invoices Without Verifying That Labor Costs Were Accurate or Supportable

USACE Huntsville paid invoices without verifying that labor costs were accurate or supportable on two Puerto Rico power grid repair and restoration contracts. Contracting officials did not adequately monitor contractor labor hours worked or

¹⁰ Maximum allowed by USACE Safety and Health Requirements Manual EM 385-1-1 is 84 hours per week.

¹¹ The 11 invoices are those paid by USACE, as of May 2018, which includes invoices one through six for contract F-0003 and invoices one through five for contract F-0032.

accurately review invoices to verify that contractor invoices corresponded to actual work performed before approving invoices for payment. FAR 16.601 states that because time-and-materials contracts do not provide an incentive to the contractor for labor efficiency, appropriate Government surveillance of contractor performance is required to give reasonable assurance that efficient methods and cost effective controls are being used.

In addition, contracts F-0003 and F-0032 require that the Government pay the hourly rate prescribed in the contract for work performed by the contractor or subcontractor.¹² The Government will pay for labor performed on the contract only if the labor meets the qualifications specified in the contract. Additionally, FAR 31.201-2 requires contractors to maintain adequate supporting documentation to demonstrate that costs have been incurred. Furthermore, the FAR requires that for a cost to be allowable, it must be incurred specifically for the contract, must meet the terms of the contract, and must be reasonable in nature. A cost is reasonable if, in its nature and amount, it does not exceed that which would be incurred by a prudent person in the conduct of competitive business.

Contracting Officials Did Not Have Appropriate Surveillance of Contractor Labor Hours

USACE Huntsville contracting officials did not have appropriate surveillance of contractor performance for the first two time-and-materials contracts, F-0003 and

USACE quality assurance personnel did not perform and document oversight of individual employee labor hours worked so that contracting officials could determine whether contractor labor hours billed were accurate.

F-0032. USACE quality assurance personnel did not perform and document oversight of individual employee labor hours worked so that contracting officials could determine whether contractor labor hours billed were accurate.

USACE quality assurance personnel were responsible for observing all work sites daily on the two contracts and providing quality assurance reports to the COR. According to the ACO, the quality assurance lead would use the contractor's list of planned work for the day to assign inspections to the quality assurance personnel teams. According to the ACO, each quality assurance team consisted of one Government representative and one quality assurance service contractor representative.¹³ The USACE daily quality assurance reports were checklists that

¹² FAR Clause 52.232-7, "Payments Under Time-and-Materials and Labor-Hour Contracts," was incorporated into contracts F-0003 and F-0032.

¹³ On December 9, 2017, USACE Louisville District contracting officials awarded a fixed-price contract, W912QR-18-C-0006, to a quality services contractor to supplement USACE quality assurance oversight of contract F-0003. According to USACE Huntsville contracting officials, contractor quality assurance services also supplemented the oversight of contract F-0032.

captured information such as the subcontractor company, general foreman's name, labor categories of crewmembers, labor hours observed, equipment, type of work performed, and locations. USACE Huntsville contracting officials stated that they were unable to use the daily quality assurance reports to verify contractor labor hours billed before approving invoices for payment because the reports did not have enough detail to validate individual employee labor hours worked. In addition, USACE Huntsville contracting officials stated that they intended to use the daily quality assurance reports to determine the number of contractor employees present. According to USACE Huntsville contracting officials, they used contractor payrolls and timesheets to verify labor billed on invoices.

Comparison of Total Subcontractor Employees With Labor Hours Billed and Paid Versus Total Observed by Quality Assurance Personnel

We attempted to verify subcontractor labor hours billed and paid using the USACE daily quality assurance reports. The CORs stated that while they reviewed the daily quality assurance reports that quality assurance personnel submitted, the reports provided total number of employees per subcontractor, but did not have enough detail to validate or refute the individual employee hours charged by the subcontractors or prime contractor.

For contract F-0003, we reviewed all daily quality assurance reports corresponding to pay period December 18, 2017, to December 24, 2017, and compared them to a nonstatistical sample of 45 of 184 timesheets. The contractor submitted these timesheets in support of labor hours billed and paid. Each timesheet reported the hours of one to nine subcontractor employees for the pay periods, which consisted of 7 days for each pay period. See Appendix C for an example of a timesheet on contract F-0003. The quality assurance reports cited the number of contractor employees observed but did not document the names of contractor employees observed at the work sites, confirming the USACE COR statement that the reports did not have enough detail to validate individual employee labor hours worked.

We calculated the total number of subcontractor employees that USACE quality assurance personnel observed and reported on the daily quality assurance reports. We compared the number of employees to the 45 timesheets in our sample for pay period December 18, 2017, to December 24, 2017. We found that for all except 1 day, the contractor submitted timesheets for reimbursement that contained more employees than the USACE quality assurance personnel observed working.

For example, our sample of 45 subcontractor timesheets reported labor hours for 200 subcontractor employees on December 21, 2017. However, quality assurance personnel observed only 58 subcontractor employees working that day. On December 23, 2017, our sample of 45 timesheets reported labor hours for 190 subcontractor employees, but quality assurance personnel observed only 46 employees working that day. Only on December 22, 2017, did quality assurance personnel observe more subcontractor employees working (306 employees) than employees reported hours on our sample of 45 timesheets (196 employees). USACE contracting officials did not adequately adjust quality assurance processes when they determined that they were unable to use observations from quality assurance personnel to validate or refute the count of subcontractor employees for whom the contractor billed labor hours.

Comparison of Employees by Specific Subcontractor With Labor Hours Billed and Paid Versus Total Observed by Quality Assurance Personnel

We used the same sample of 45 of 184 timesheets to compare each of the three subcontractor's employees to the USACE quality assurance reports.

- For subcontractor one, we reviewed 28 timesheets from our timesheet sample. Subcontractor one submitted 110 of the total 184 timesheets for the pay period.
- For subcontractor two, we reviewed 14 timesheets from our timesheet sample. Subcontractor two submitted 54 of the total 184 timesheets for the pay period.
- For subcontractor three, we reviewed three timesheets from our timesheet sample. Subcontractor three submitted 20 of the total 184 timesheets for the pay period.

The number of employees on timesheets that supported invoices did not match the number of employees observed working by quality assurance personnel. For example, for subcontractor one, our sample of timesheets included 28 timesheets submitted for pay period December 18, 2017, to December 24, 2017. Those 28 timesheets reported hours for 105 subcontractor employees for December 18, 2017. USACE quality assurance reports for December 18, 2017, noted that quality assurance personnel observed only 22 of that subcontractor's employees working on that day, not the 105 reported on the 28 timesheets for which USACE Huntsville paid the contractor.

For subcontractor two, our sample included 14 timesheets submitted for pay period December 18, 2017, to December 24, 2017. Those 14 timesheets supported hours for 73 of that subcontractor's employees for December 20, 2017. USACE quality assurance reports for December 20, 2017, noted that quality assurance personnel observed 68 subcontractor employees working on that day, not the 73 on the 14 timesheets for which USACE Huntsville paid the contractor.

For subcontractor three, our sample included three timesheets submitted for pay period December 17, 2017, to December 23, 2017.¹⁴ USACE quality assurance reports for the pay period did not identify any of the subcontractor's employees.

In addition, we reviewed a nonstatistical sample of 78 daily quality assurance reports that reported work observed on both contracts F-0003 and F-0032, between December 1, 2017, and March 8, 2018. On all quality assurance reports, USACE quality assurance personnel noted hours observed by job category only and not employee names. The quality assurance personnel did not provide any additional information on the reports for us to verify whether contractor labor hours billed were accurate. USACE contracting officials did not adequately adjust quality assurance processes when they were unable to use quality assurance reports to validate or refute labor hours billed by the contractor.

Contracting Officials Approved Payment for Invoices Without Adequate Supporting Documentation

USACE Huntsville paid for labor costs that the contractor did not adequately support. Specifically, subcontractor timesheets did not include employee self-certification of labor hours worked. Additionally, USACE contracting officials approved invoices without documentation supporting that employees performed

USACE contracting officials approved invoices without documentation supporting that employees performed work on the contracts before arriving in Puerto Rico.

work on the contracts before arriving in Puerto Rico. Furthermore, USACE contracting officials approved invoices without documentation to support that employees performed work on the contract and that overtime was necessary.

¹⁴ Subcontractor three's pay period was December 17, 2017, to December 23, 2017, instead of December 18, 2017, to December 24, 2017, like the other two subcontractors.

Subcontractor Timesheets Were Inadequate

Subcontractor timesheets did not include employee self-certification of labor hours worked. While employee self-certification is not a specific contract requirement, time-and-materials contracts provide no positive profit incentive to the contractor for cost control or labor efficiency. Employee self-certification would provide evidence that employees acknowledged that the hours reported were accurate. Therefore, contracting officials should require contractors to submit individually certified timesheets to provide support for labor hours billed. Without individual employee certification of hours worked, the timesheets were not adequate support to demonstrate that hours reported were accurate. FAR 31.201-2 requires contractors to maintain adequate supporting documentation to demonstrate that contract costs have been incurred. For contract F-0003, we reviewed timesheets for pay period December 18, 2017, to December 24, 2017, for three subcontractors. For contract F-0032, we reviewed timesheets for pay periods January 22, 2018, to January 28, 2018, and January 29, 2018, to February 4, 2018, respectively, for two subcontractors.

Contract F-0003 Timesheet Review

Of the timesheets we reviewed for 866 subcontractor employees for contract F-0003, none contained employee signatures to certify that the time reported was accurate. Furthermore, approvals for subcontractor timesheets were inadequate. For example, one person approved all timesheets for 519 employees for a subcontractor on February 3, 2018, for the pay period ending on December 24, 2017, which was more than 5 weeks later. In another example, one person approved timesheets for 252 employees for another subcontractor, without a date showing when the timesheets were approved.

Because timesheets were not self-certified, we also reviewed the daily contractor quality control reports that the contractor submitted to determine whether the subcontractor employees had certified any hours worked on other supporting documentation for labor hours billed. The contractor's daily quality control reports reported work performed for the day to USACE contracting officials, and the reports included information such as employee names, job category, hours worked, and work order number. If subcontractor employees signed the daily quality control reports that included their hours worked, we considered the reports support for individual certification of hours worked. For contract F-0003, we selected a nonstatistical sample of 45 of 184 timesheets from pay period December 18, 2018, to December 24, 2018, to compare to the quality control reports for self-certification of hours worked. We found that either there

were no corresponding quality control reports or employees did not self-certify on the reports that 16,196 out of 18,042 hours were hours actually worked. The remaining 1,846 hours were supported by employee self-certification of work performed.

Contract F-0032 Timesheet Review

For contract F-0032, we reviewed timesheets for 520 subcontractor employees and found that only 3 employees had signed their timesheet certifying that they worked those hours. In addition, for one subcontractor, one person approved timesheets for all 218 employees for that pay period, with no date indicating when the approval occurred. For the second subcontractor, one person approved timesheets for all 302 employees for that pay period, with no date indicating when the approval occurred.

We then selected a nonstatistical sample of 45 timesheets for the 520 employees for contract F-0032. We compared the timesheets to the corresponding daily contractor quality control reports, which cited employees and hours worked. If subcontractor employees signed the daily quality control reports that included their hours worked, we considered the reports support for individual certification of hours worked. We found that either there were no corresponding quality control reports or employees did not self-certify on the reports that 14,459 out of 14,603 hours were hours actually worked. The remaining 144 hours were supported by employee self-certification of work performed.

USACE Huntsville contracting officials sent the prime contractor a letter dated March 8, 2018, requiring the contractor to provide individually signed timesheets with invoices. However, by that point, according to USACE Huntsville contracting officials, most of the power grid repair and restoration work had been completed and employees had left Puerto Rico.

Labor Hour Costs Paid for Contractor Employees Before Their Arrival in Puerto Rico Were Unsupported

USACE Huntsville paid invoices without documentation to support that employees performed work on the contracts before arriving in Puerto Rico. We reviewed 340 timesheets and flight documentation for 185 employees on contracts F-0003 and F-0032. We identified that 122 employees had been charging time to the contracts before they arrived in Puerto Rico. We reviewed supporting documentation showing training, travel, and movement of equipment before employees arrived in Puerto Rico. We found that 114 employees (from 185) did not have adequate supporting documentation for work performed and charged to the contract before they arrived in Puerto Rico. For example,

first aid and CPR training and safety meeting rosters did not provide times of training and meetings or details on why the employees charged 12 hours a day, for multiple days in a row. In another example, the contractor provided written explanations to support travel to and from the airport, but not actual documentation, such as flight itineraries, receipts, or manifests, to support the travel.

Additionally, we identified that USACE Huntsville paid the contractor \$1.4 million for 6,482 labor hours that 122 employees charged for work they could not support with documentation in accordance with FAR 31.201-2. The FAR requires contractors to maintain adequate supporting documentation to demonstrate

The contractor charged 1,008 labor hours between December 3, 2017, and December 16, 2017, totaling \$221,718 labor costs paid, without support that those employees actually performed work on the contract before arriving in Puerto Rico.

that contract costs have been incurred. For example, one subcontractor submitted flight documentation for four line workers and two crane operators to document that the employees arrived in Puerto Rico on December 17, 2017. However, the contractor charged 1,008 labor

hours between December 3, 2017, and December 16, 2017, totaling \$221,718 labor costs paid, without support that those employees actually performed work on the contract before arriving in Puerto Rico. In another example, 12 employees never arrived on the island to perform work. However, the contractor charged 1,043 labor hours and USACE Huntsville paid a total of \$134,777 without support.

USACE Huntsville contracting officials should review contractor and subcontractor timesheets and corresponding travel documentation, and for those contractor employees charging time on contracts F-0003 and F-0032 before their arrival in Puerto Rico, contracting officials should request supporting documentation to determine whether those labor costs were reasonable and allowable. If the contractor cannot support the costs, the contracting officers should determine those costs as unallowable and take action to recoup those costs.

Labor Hour Costs and Overtime Were Unsupported and Still Paid

USACE Huntsville contracting officials approved invoices without documentation to support that employees performed work on the contract, in accordance with the contract. Additionally, USACE Huntsville contracting officials approved payment for overtime without documentation to support why overtime was necessary. The contract requires the Government to pay for work that the contractor or subcontractor performs. Additionally, FAR 31.201-2 requires contractors to

maintain adequate supporting documentation to demonstrate that contract costs have been incurred, and further states that for a cost to be allowable, it must be reasonable in nature. A cost is considered reasonable if it does not exceed that which would be incurred by a prudent person in the conduct of competitive business.

USACE Huntsville paid for 12,560 labor hours, valued at \$2.6 million, without adequate documentation to support that employees performed work or that overtime was necessary on contracts F-0003 and F-0032. Specifically, we found that USACE Huntsville contracting officials approved payment for:

- 12,106 labor hours without adequate supporting documentation that employees performed work, and
- 454 overtime hours without support as to why the overtime was necessary.

During our initial review of contractor-charged time before employees arrived in Puerto Rico, we identified that two subcontractors had employees charging time to their timesheets when those employees had not been assigned power grid repair and restoration work. Based on this observation, we conducted additional analysis to determine whether those labor hours billed on the invoice were reasonable and supportable in accordance with the FAR 31.201-2. We reviewed a nonstatistical sample of timesheets and associated contractor daily quality control reports for 77 employees and found that only 3 employees had been assigned power grid repair and restoration work before charging time. The remaining 74 employees charged time without being assigned power grid repair and restoration work. Additionally, either the contractor did not submit daily quality control reports to support the work the employees were doing, or the reports that were submitted:

- documented that employees were on standby or idle time;
- provided no description of work performed;
- documented that employees did not perform power grid repair and restoration work; or
- stated that employees performed other work, such as attending safety meetings, picking up trash, and cleaning their rooms, but did not support why the overtime they charged for these tasks was needed.

For example, the contractor did not submit daily quality control reports to support labor hours charged for 41 employees from November 5, 2017, to November 26, 2017. However, USACE Huntsville paid 7,721 hours in labor costs, valued at \$1.6 million, for those employees without adequate documentation to support that they performed any work between those dates.

Additionally, examples of inadequate support of overtime hours paid included employees charging 12 hours a day:

- for safety meetings (4 hours overtime),
- to “clean the area” (4 hours overtime),
- for equipment assignments (4 hours overtime), and
- to organize personal protective equipment (4 hours overtime).

USACE Huntsville contracting officials should review contractor and subcontractor timesheets and additional supporting documentation to determine whether the contractor billed for employees without support that work was performed on the contract and request supporting documentation for the overtime hours to determine whether those labor costs were reasonable and allowable.

Contracting Officials Did Not Verify Contractor Employee Qualifications

USACE Huntsville contracting officials did not verify whether contractor employees met qualifications for labor categories included in the contracts before approving invoices. Contracts F-0003 and F-0032 require that labor hours incurred on a time-and-materials contract be paid only if an employee who meets the specified contractual qualifications requirements performs the work. In addition, the contracts require that labor

qualifications be supported by adequate documentation to show that an employee met the specified contractual qualifications and agency supplements. However, USACE Huntsville contracting

USACE Huntsville contracting officials did not include labor qualification requirements for any of the 133 labor categories the contractor billed on contract F-0003, and did not included 79 out of 97 labor categories the contractor billed on contract F-0032.

officials did not include labor qualification requirements for any of the 133 labor categories the contractor billed on contract F-0003, and did not included 79 out of 97 labor categories the contractor billed on contract F-0032. The labor qualification requirements specified in contract F-0032 for the 7 labor categories we selected for review are as follows.

- Groundman required at least 1 year of experience.
- Operator, Heavy Equipment (Crane Operator) required at least 3 years of experience.
- Overhead General Foreman required at least 7 years of experience.
- Overhead Line Foreman required at least 5 years of experience.

- Overhead Lineman – Apprentice required at least 1 year of experience.
- Overhead Lineman – Journeyman required at least 3 years of experience.
- Superintendent required at least 10 years of experience.

In addition, USACE Huntsville contracting officials incorporated the USACE Safety and Health Requirements Manual into contracts F-0003 and F-0032.¹⁵ The USACE manual requires that crane operators be certified, qualified, and designated in writing to operate the equipment.

We identified 3,524 labor hours, valued at \$755,752 paid by USACE Huntsville for 21 out of 72 contractor employees selected for review who did not have the required years of experience in accordance with contract F-0032. For example, the contract required:

- a superintendent to have 10 or more years of relevant experience for this labor category, and
- an overhead lineman journeyman to have 3 or more years of relevant experience for this labor category.

The contractor billed 420 hours, valued at \$94,589, for a superintendent; however, the contractor did not have any documentation showing whether the employee met the minimum years of experience for a superintendent. In addition, the contractor billed 252 hours, valued at \$57,820, for an overhead lineman journeyman; however, the employee had only less than a year of experience instead of the 3 or more years required.

We also determined that 14 out of 16 crane operator employees in contracts F-0003 and F-0032 were not properly certified in accordance with USACE policy. In contract F-0003, USACE Huntsville contracting officials paid 2,971 hours, valued at \$669,351, for nine subcontractor employees who were identified as crane operators. However, those employees did not meet the USACE policy requirements for that labor category. All nine subcontractor crane operators did not have adequate documentation showing whether they met the USACE policy certification requirement. USACE policy requires a current certification by a Nationally Accredited Crane Operator Testing Organization that identifies the type of equipment on which the operator was certified. Five of the certifications provided as documentation did not identify cranes as the type of equipment and identified only bucket trucks, digger derricks, skid-steers, and bull dozers. The other four certifications provided as documentation were not crane operator

¹⁵ U.S. Army Corps of Engineers Safety and Health Requirements Manual EM 385-1-1, Section 16.B.02, "Crane Operator Requirements – General," and Section 16.B.03, "Crane Operator Certification, Qualification and Designation," November 30, 2014.

certificates, but were of certificates showing successful completion of competency skills. In contract F-0032, USACE Huntsville contracting officials paid 1,021 hours, valued at \$223,945, for four subcontractor employees who were identified as crane operators. However, those employees did not have the proper employer certification for this labor category as required by the USACE policy. In addition, a subcontractor's crane operator was properly certified for this labor category but did not have the required minimum years of experience.

Contract F-0003 required the contractor to provide qualified personnel to support the power grid repair and restoration work. However, USACE contracting officials did not define any qualifications in contract F-0003. USACE contracting officials stated that there were no specific qualifications included in contract F-0003, and as a lesson learned, they then included labor qualification requirements in contract F-0032. However, USACE contracting officials did not include labor qualification requirements in contract F-0032 for all the labor categories proposed and billed by the contractor.

USACE Huntsville contracting officials should review employee qualifications for all labor categories for which the contractor billed USACE on contracts F-0003 and F-0032 to determine whether the employees met the requirements of the contracts and the USACE Safety and Health Requirements Manual, and whether those labor costs were allowable.

USACE Paid for Labor Hours in Excess of Hours Permitted

USACE Huntsville contracting officials did not verify that contractor employees worked within the 84-hour weekly limit allowed by USACE policy before approving invoices for payment. The USACE Safety and Health Requirements Manual, which was incorporated into contracts F-0003 and F-0032, required that no contractor employee work more than 84 hours per week during emergency operations after the first 2 weeks of an emergency response. However, USACE contracting officials stated that they did not verify whether contractor employees worked 84 hours or less before payment. We identified 45,119 labor hours, valued at \$10.9 million, paid by USACE in excess of the weekly hours allowed by USACE policy.

We reviewed all hours billed and paid per week for each employee for both contracts to calculate the excess of 84 hours per week for each employee, after the first 2 weeks of work starting on contract F-0003. Our review included 16 pay periods from invoices one through six for contract F-0003 and 7 pay periods from invoices three, four, and five for contract F-0032.¹⁶ For contract F-0003, we identified a total of 45,070 hours paid by USACE in excess of the 84 weekly hours

¹⁶ A pay period was 7 days. The contractor did not bill labor on invoices one and two for contract F-0032.

allowed. For contract F-0032, we identified a total of 49 hours that USACE paid in excess of the 84 weekly hours allowed. For example, for contract F-0003, invoice four included 120 hours for 1 week for a single subcontractor employee, including 22 hours for 1 day.

USACE Huntsville contracting officials should review all labor hours billed for contracts F-0003 and F-0032 to determine whether contractor employees exceeded the maximum weekly hours allowed by the USACE Safety and Health Requirements Manual and whether those labor hours were reasonable and allowable.

Quality Assurance and Invoice Review Procedures Were Inadequate

USACE Huntsville contracting officials did not have quality assurance procedures or written invoice review procedures that ensured adequate Government oversight of contractor labor hours worked and adequate documentation from the contractor to support labor hours billed before payment.

Quality Assurance Surveillance Procedures Were Inadequate

USACE Huntsville contracting officials did not have adequate written quality assurance surveillance procedures to ensure that labor hours billed for 2,777 contractor and subcontractor employees on contract F-0003 and 1,054 employees on contract F-0032 were accurate.¹⁷ According to the quality assurance surveillance plans for both contracts, quality assurance personnel were to check all work sites daily and provide daily reports to the CORs, at a minimum reporting the tasks for that day, contractor personnel, equipment, and weather. According to the written invoice review procedures for the contracts, contracting officials had intended to compare information reported in the USACE quality assurance reports with the contractor quality control reports and discuss discrepancies with the contractor. According to the ACO, the quality assurance reports were to be used to document overall contractor head count, not to verify contractor labor hours billed.

According to contracting officials, each quality assurance team consisted of one Government representative and one contracted quality assurance employee. The quality assurance teams were given surveillance assignments every morning that typically came from the power grid contractor's work plan for the day, which assigned crews to specific power lines.

¹⁷ Number of employees for which the contractor billed labor on invoices one through six on contract F-0003 and one through five on contract F-0032.

However, according to contracting officials, conditions in Puerto Rico were challenging, and the contractor's plan for the day did not always correspond to actual work performed. According to contracting officials, challenges in Puerto Rico included lack of phone service at times, difficulty locating exactly where contractor personnel were working, and trouble accessing work locations due to difficult terrain. Contracting officials stated that there was confusion at the beginning of the contract about what actions to take when a quality assurance team was not able to locate a contractor crew. In addition, according to contracting officials, the contractor did not submit daily quality control reports in a timely manner. Therefore, the CORs were unable to compare contractor labor that quality assurance personnel observed with the quality control reports that the contractor submitted.

USACE Huntsville contracting officials did not make adequate adjustments to quality assurance surveillance processes when they were unable to use quality assurance reports to validate or refute labor hours billed by

USACE Huntsville contracting officials did not make adequate adjustments to quality assurance surveillance processes when they were unable to use quality assurance reports to validate or refute labor hours billed by the contractor.

the contractor. The USACE Commanding General should develop, implement, and require training on standard operating procedures for a method of surveillance that would allow contracting officials to test the validity of labor billed on future time-and-materials contracts.

Invoice Review Process Was Inadequate

USACE Huntsville contracting officials did not have an adequate invoice review process in place to verify labor hours billed before payment. In addition, the contracting officials did not include all requirements in contracts F-0003 and F-0032 needed to perform adequate invoice reviews.

The written invoice review procedures for the contracts directed the ACOs and CORs to cross-check the USACE quality assurance reports with the contractor's quality control reports, both of which noted contractor employee counts and work hours observed. The procedures directed the ACOs and CORs to provide a summary of discrepancies, such as differences in employee count noted on the reports, to the contractor before the contracting office approved the invoices. However, USACE Huntsville contracting officials stated that they were unable to use the quality assurance reports for the interim invoice reviews because the reports did not have enough detail to validate or refute the individual employee hours charged. In addition, while not in the written invoice review procedures,

contracting officials stated that they would use contractor payrolls and timesheets to verify labor billed on invoices, but not all payrolls were provided. Also, contractor payrolls showed only that employees were paid, not that they actually worked those hours. Furthermore, we determined that the contractor-submitted timesheets were not adequate support for actual labor hours worked because they were not individually certified. The contracts require that the Government pay the contractor only for labor that is performed by the contractor and subcontractor employees who meet the labor category qualifications specified in the contract.

The written invoice review procedures did not require contracting officials to:

- verify whether contractor employees met qualifications for labor categories;
- obtain supporting documentation for labor hours billed for contractor employees who had not yet arrived in Puerto Rico;
- obtain supporting documentation for overtime labor hours billed for contractor employees on standby; and
- review interim vouchers for contractor employee labor hours exceeding 84 hours per week.

Adding to the importance of adequate invoice review processes was the sometimes inconsistent and delayed manner in which the contractor billed subcontractor labor. For example, on contract F-0003, the contractor billed two subcontractors' labor hours for pay period December 11, 2017, to December 17, 2017, on invoice three. However, the contractor billed labor hours for the same pay period for a third subcontractor on invoice four. In another example, on contract F-0032, the contractor billed labor for one subcontractor for pay period January 8, 2018, to January 14, 2018, on March 12, 2018, which was 2 months later. Also, qualification requirements for all labor categories were not included in contracts F-0003 and F-0032, nor was the requirement for individually certified timesheets.

The USACE Commanding General should develop, implement, and require training on standard operating procedures for:

- interim voucher reviews for future time-and-materials contracts; and
- elements that should be included in future time-and-materials contracts, such as job qualifications for labor rates and individually certified timesheets.

USACE Huntsville Potentially Overpaid on Interim Invoices for the Repair and Restoration of Electric Power Grid in Puerto Rico

Because USACE Huntsville contracting officials did not adequately monitor contractor labor hours worked or accurately review invoices to ensure contractor invoices corresponded to actual work performed, USACE Huntsville paid for unsupported labor costs for contracts F-0003 and F-0032. Specifically, quality assurance personnel did not perform and document oversight of individual employee labor hours worked in a manner that would allow contracting officials to determine whether contractor labor hours billed were accurate or not. Contracting officials also did not obtain adequate supporting documentation for labor hours billed, such as adequate timesheets, support for labor billed for employees who had not arrived in Puerto Rico, and overtime charged to standby time. In addition, contracting officials did not verify whether contractor employees met qualifications for labor categories listed in the contracts and did not verify whether contractor employees worked within the 84-hour weekly limit allowed by USACE policy before approving invoices for payment. As a result, USACE Huntsville paid labor costs of approximately \$20.9 million that were unsupported and potentially unallowable. See Appendix B for details on potential monetary benefits.

USACE Huntsville contracting officials should review all labor and material costs for contracts F-0003 and F-0032 and determine whether they are supportable and allowable.

Management Comments on the Finding and Our Response

U.S. Army Corps of Engineers Comments

The USACE Commanding General stated that the magnitude of the destruction of Hurricane Maria, the complexity of the mission, the urgency for Federal action, and the degree of human suffering could not be overstated. The Commanding General stated that responding to Hurricane Maria in Puerto Rico was not business as usual. He stated that life, health, and safety considerations dictated expediency at the expense of established processes. The Commanding General also stated that in a natural disaster, his focus is to save lives and property and always strive to meet requirements. He stated that the DoD OIG failed to understand the extreme constraints of the disaster. He stated USACE will strive to do better when responding to natural disasters given the nature of the disaster and the relentless manning reductions.

The Commanding General stated that USACE serves as FEMA's public works engineer under the National Response Framework. He stated that missions performed in a response event normally include temporary emergency power, temporary roofing, temporary housing, debris management and reduction, and critical infrastructure assessment and repair. The Commanding General stated that the repair and restoration of an electrical power grid is not a core USACE mission. The Commanding General explained that the Puerto Rico Electric Power Authority did not have the necessary capability, capacity, or structure to respond to the hurricane damage, and the U.S. Department of Energy did not have the expeditionary tools and resources in place to perform the mission. Therefore, FEMA relied on USACE to restore the power grid.

The Commanding General stated that within 2 weeks of Hurricane Maria devastating Puerto Rico, USACE officials awarded the first of several grid restoration contracts. The Commanding General stated, while not ideal, USACE used existing contingency contracts to meet time sensitive requirements and to execute the mission on a geographically challenging island. He explained that there was significant financial risk to the contractors who undertook the work, to USACE's reputation, and to the U.S. Government in answering the call to restore power to over 3 million U.S. citizens. The Commanding General further stated that time-and-material contracts, while not a USACE best business practice, had acceptable shared risk and facilitated the urgency to respond rapidly.

The Commanding General highlighted contributing factors to the shortfalls identified in monitoring contract labor hours and invoices. For example, the Commanding General stated that USACE simultaneously responded to multiple crises in 2017 and 2018, including 20 hurricanes/typhoons, 5 wildfires, and 16 other natural disasters, which contributed to USACE shortfalls in monitoring contractor labor hours and invoices. He stated that it was a challenge to sustain the required number of quality assurance personnel and that USACE quality assurance volunteers were geographically assigned across the Caribbean, Gulf Coast, and Florida Peninsula.

The Commanding General added that USACE obligated over \$1.5 billion for power restoration and had over 3,000 contractors working on grid restoration, which was 80 percent damaged. The Commanding General also stated that USACE procured, transported, and stored \$229 million in materials because of material shortages in Puerto Rico. In addition, USACE installed over 2,300 generators and restored power to an estimated 1.45 million customers.

Our Response

The Commanding General cites the magnitude of destruction, complexity of the mission, the urgency of the response, and the extreme constraints and challenges in providing oversight during the power grid restoration in response to Hurricane Maria. We added additional information to the background of the final report to emphasize the magnitude of the destruction from Hurricane Maria and the complexity of the power grid repair and restoration mission. We acknowledged that Hurricane Maria devastated Puerto Rico and the hurricane affected the lives, safety, and health of the island's citizens. We recognized that the hurricane left 1.5 million electric customers without power or communication and knocked down 80 percent of the island's utility poles and all transmission lines.

We acknowledged in the report that the Department of Energy is usually assigned as the primary agency for restoration of damaged energy systems and components and that FEMA issued the mission assignment to USACE because the Department of Energy did not have the capacity to manage the power grid restoration work in Puerto Rico. Additionally, we included information from an April 2019 GAO report on the 2017 hurricane season, which stated that USACE personnel worked to restore 98 percent of power to Puerto Rico by May 2018, and explained that USACE installed over 2,300 emergency generators in Puerto Rico. Further, we included statements from contracting officials explaining the conditions in Puerto Rico were challenging, including, lack of phone service, difficulty locating exactly where contractor personnel were working, and trouble accessing work locations due to difficult terrain.

We recognize the conditions that USACE faced in Puerto Rico and the urgency of the necessary actions. However, proper controls are also important to implement, even in these circumstances. According to the Council of Inspector General's for Integrity and Efficiency, disasters provide unique opportunities for fraud, abuse, and mismanagement, and proper controls and oversight of these contracts are important to ensure the proper use of taxpayer dollars and also to ensure that the proper recipients receive the full benefit and use of Federal funds designated for relief and recovery. Therefore, this report discusses whether USACE officials properly monitored contractor labor hours and accurately reviewed and paid invoices for the Puerto Rico power grid repair and restoration contracts in accordance with Federal and DoD guidance. Specifically, we determined that USACE did not adequately monitor contractor labor hours worked or accurately review invoices to ensure contractor invoices corresponded to actual work performed on its three power grid repair and restoration contracts.

Management Comments on Potential Monetary Benefits

A summary of management comments on potential monetary benefits and our response is in Appendix B.

Recommendations, Management Comments, and Our Response

Recommendation A.1

We recommend that the Commanding General of the U.S. Army Corps of Engineers develop, implement, and require training on standard operating procedures that require:

- a. Detailed quality assurance surveillance plans for all current and future time-and-materials contracts. The plans should include surveillance checklists, which at a minimum, provide enough information for contracting officials to verify labor hours on contractor invoices on time-and-materials contracts.**
- b. Detailed invoice review procedures for all current and future time-and-materials contracts. The procedures should include, at a minimum, detailed guidance on reviewing whether the contractor met labor category qualifications, obtaining and reviewing adequate supporting documentation for labor hours and materials billed, and determining whether labor hours billed exceed contractual requirements for maximum allowable weekly hours.**
- c. Specific labor qualifications for all contract labor categories in all current and future time-and-materials contracts.**
- d. Contractors to submit individually certified timesheets for labor on all current and future time-and-materials contracts.**

U.S. Army Corps of Engineers Comments

The USACE Commanding General agreed with our recommendation and stated that the Director of Contracting tasked all USACE contracting officers to take the Defense Acquisition University's time-and-materials training course and to review this DoD Office of Inspector General (DoD OIG) report, prepare an after action report, and provide lessons learned to the contracting community. Additionally, the Director released checklists to be used by CORs, including a quality assurance surveillance plan checklist and a payment approval/recommendation checklist.

The Director ordered copies of the DoD Contingency COR Handbook to be used by staff while supporting contingency operations. Additionally, the Director will include time-and-materials contracts as a special interest item in the procurement management review process by October 30, 2019.

Our Response

The USACE Commanding General's comments partially addressed the recommendation; therefore, the recommendation is unresolved. Although the Director of Contracting distributed checklists for the CORs and tasked the USACE contracting officers to take a time-and-materials training course, the response was not clear on whether the checklists would provide enough information for contracting officials to verify labor hours on contractor invoices on time-and-materials contracts. Additionally, the comments did not address whether the payment approval/recommendation checklist contained detailed guidance on reviewing whether the contractor met labor category qualifications, obtaining and reviewing adequate supporting documentation for labor hours and materials billed, and determining whether labor hours billed exceed contractual requirements for maximum allowable weekly hours. The Commanding General's comments also did not address whether training for USACE contracting officers would include the specifics in Recommendations A.1.a through A.1.d. Furthermore, the Commanding General's comments do not address requiring specific labor qualifications for all contract labor categories in all current and future time-and-materials contracts and requiring contractors to submit individually certified timesheets for labor on all current and future time-and-materials contracts. Therefore, the USACE Commanding General should provide comments to the final report clarifying whether the contents of the checklists address the specifics in the recommendations, whether contracting officers will receive training to address the specifics in the recommendations, the recommended inclusion of labor categories in future time-and-materials contracts, and requiring contractors to submit individually certified timesheets.

Recommendation A.2

We recommend that the Commander of U.S. Army Engineering and Support Center, Huntsville, direct the contracting officers to:

- a. Review all labor and material costs for contracts W912DY-18-F-0003 and W912DY-18-F-0032 and determine whether they are supportable and allowable, in accordance with Federal Acquisition Regulation 31.201-2, "Determining Allowability."**

- b. Review all contractor and subcontractor timekeeping records and corresponding travel documentation to determine whether employees were charging time on contracts W912DY-18-F0003 and W912DY-18-0032 before arriving in Puerto Rico. If employees were charging time before arriving in Puerto Rico, contracting officials should require the contractor to provide adequate supporting documentation showing that those costs are allowable, in accordance with Federal Acquisition Regulation 31.201-2, "Determining Allowability." If the contractor cannot support the costs, the contracting officers should determine those costs as unallowable and take action to recoup those costs.**
- c. Review all contractor and subcontractor timekeeping records and additional supporting documentation to determine whether contractor and subcontractor employees were appropriately charging standby time and charging overtime when not performing power grid repair and restoration work. If employees were charging overtime while on standby, contracting officials should require the contractor to provide adequate supporting documentation showing that the overtime was reasonable and allowable, in accordance with Federal Acquisition Regulation 31.201-2, "Determining Allowability." If the contractor cannot support the costs, the contracting officers should determine those costs as unallowable and take action to recoup those costs.**
- d. Review qualifications for all labor categories contained in contracts W912DY-18-F-0003 and W912DY-18-F-0032 and determine whether they meet the requirements of the contract and U.S. Army Corps of Engineers Safety and Health Requirements Manual EM 385-1-1. If labor costs do not meet the contractual or manual requirements, the contracting officer should determine those associated costs as unallowable in accordance with Federal Acquisition Regulation 31.201-2, "Determining Allowability."**
- e. Review all labor hours billed and paid for contracts W912DY-18-F-0003 and W912DY- 18-F-0032 and determine whether they exceed the maximum allowable weekly hours contained in U.S. Army Corps of Engineers Safety and Health Requirements Manual EM 385-1-1. If labor costs exceed the manual requirements, the contracting officer should determine those associated costs as unallowable in accordance with Federal Acquisition Regulation 31.201-2, "Determining Allowability."**

U.S. Army Corps of Engineers Comments

The USACE Commanding General agreed with our recommendation and stated that, in accordance with FAR 52.216-7, "Allowable Cost and Payment," and FAR 52.232-7, "Payments under Time and Materials and Labor-Hour Contracts," the contracting officers are performing an audit of the vouchers and supporting documentation before final payment on the contracts. The Commanding General added that the DCAA is assisting USACE and that the planned completion of the audit is January 2020.

Our Response

The USACE Commanding General's comments partially addressed the recommendation; therefore, the recommendation is unresolved. Although the Commanding General stated the contracting officers are performing audits of vouchers and supporting documentation, the response was not clear on whether the audit would address the specifics in the recommendations. Therefore, the USACE Commanding General should provide comments to the final report clarifying whether the audits of vouchers and supporting documentation address the specifics in the recommendations. Additionally, we request that the USACE Commanding General provide the results of the voucher audits and supporting documentation on contracts W912DY-18-F-0003 and W912DY-18-F-0032.

Finding B

USACE Jacksonville Did Not Adequately Monitor or Review Contractor Labor Hours Before Payment

USACE Jacksonville paid invoices without verifying that labor costs were accurate or supportable on contract C-0003, a Puerto Rico power grid repair and restoration contract. Contracting officials did not adequately monitor contract labor hours worked or accurately review invoices to ensure contract invoices corresponded to actual work performed. Specifically, contracting officials did not:

- provide appropriate surveillance of contractor performance to verify that labor hours billed were accurate;
- obtain adequate supporting documentation for labor hours billed by the contractor;
- review labor rates from contractor invoiced labor hours; or
- verify whether contractor employees met qualifications for labor categories included in the contract.

This occurred because USACE Jacksonville contracting officials did not incorporate required elements of a time-and-materials contract into contract C-0003, such as labor qualifications and hourly rates, before approving invoices for payment, in accordance with Federal regulations. DCAA officials could not provide audit assistance because USACE Jacksonville contracting officials did not incorporate required elements of a time-and-materials contract into contract C-0003. Furthermore, USACE Jacksonville contracting officials awarded a time-and-materials contract without determining whether the contractor's accounting system was acceptable, as required by DoD regulation.¹⁸ In addition, USACE Jacksonville contracting officials did not have quality assurance procedures or written invoice review procedures that ensured adequate Government oversight of contractor labor hours worked and adequate documentation from the contractor to support labor hours billed before payment.

As a result, USACE Jacksonville contracting officials did not know whether contractor labor costs paid on seven invoices, valued at \$61.3 million, were allowable in accordance with Federal regulations or terms of the contract.¹⁹ Based on our testing of labor costs, we identified at least \$29.2 million in labor costs paid by USACE that were unsupported and potentially unallowable.

¹⁸ Defense Federal Acquisition Regulation Supplement 242.7502, "Policy."

¹⁹ The seven invoices are those paid by USACE, as of May 2018, which included invoices one through seven for contract C-0003.

USACE Jacksonville Paid Invoices Without Verifying That Labor Costs Were Accurate or Supportable

USACE Jacksonville paid invoices without verifying that labor costs were accurate or supportable on contract C-0003 for the Puerto Rico power grid repair and restoration. Contracting officials did not adequately monitor contractor labor hours worked or accurately review invoices to ensure contract invoices corresponded to actual work performed before approving invoices for payment. FAR 16.601 states that because time-and-materials contracts provide no positive profit incentive to the contractor for labor efficiency, appropriate Government surveillance of contractor performance is required to give reasonable assurance that efficient methods and cost effective controls are being used. In addition, the Defense Federal Acquisition Regulation Supplement (DFARS) requires that contractors receiving a time-and-materials contract maintain an acceptable accounting system that provides reasonable assurance that cost data is reliable and complies with applicable laws and regulations.²⁰ FAR 31.201-2 also requires contractors to maintain adequate supporting documentation to demonstrate that contract costs have been incurred.

In addition, the contract requires that the Government pay the hourly rate prescribed in the contract for work performed by the contractor or subcontractor.²¹ The Government will pay for labor performed on the contract only if the labor meets the labor qualifications specified in the contract.

Contracting Officials Did Not Have Appropriate Surveillance of Contractor Performance

USACE Jacksonville contracting officials did not have appropriate surveillance of contractor performance on contract C-0003 to ensure labor hours billed were accurate. USACE quality assurance personnel did not perform and document oversight of individual employee labor hours worked so that contracting officials could determine whether contractor labor hours billed were accurate.

USACE Jacksonville Daily Quality Assurance Reports

A USACE Jacksonville ACO stated quality assurance personnel were responsible for monitoring all work on the C-0003 contract and providing daily quality assurance reports to the COR. The USACE Jacksonville contracting officer stated USACE quality assurance personnel were USACE employees who deployed to Puerto Rico to help manage the emergency response activities. According to the ACO, each

²⁰ DFARS 242.7502, "Policy."

²¹ FAR Clause 52.232-7, "Payments Under Time-and-Materials and Labor-Hour Contracts," was incorporated into contract C-0003.

quality assurance team consisted of approximately two to three quality assurance representatives embedded with a team of contractor line workers. Additionally, USACE Jacksonville contracting officials stated that there were approximately one to two contracted quality assurance personnel assisting the USACE quality assurance personnel on each team.²² The USACE Jacksonville contracting officer stated that the quality assurance personnel would perform headcounts before contractor crews headed out to assigned work sites and headcounts when the contractor crews returned from work sites. The USACE Jacksonville contracting officer stated that once they arrived at the site, quality assurance personnel would perform vehicle, personnel, and equipment counts throughout the day. According to the USACE Jacksonville contracting officer, quality assurance personnel were not with the contractor crews all day and only recorded the hours they observed on the daily quality assurance reports. The USACE Jacksonville contracting officer explained that sometimes the contractor or subcontractor employees traveled to remote worksites by helicopter; however, quality assurance personnel were not authorized to travel in contractor provided helicopters. Therefore, the USACE Jacksonville contracting officer stated that quality assurance personnel were unable to travel to those remote locations to provide oversight of those repairs. In addition, the USACE Jacksonville contracting officer stated that quality assurance personnel would ask contractor or subcontractor employees about which labor category they were assigned; however, contracting personnel stated that they did not review the labor rates the contractor billed before payment.

The USACE daily quality assurance reports were checklists that captured information such as details on contractor crews, labor hours observed, equipment, type of work performed, and locations. However, USACE Jacksonville contracting

USACE Jacksonville contracting officials acknowledged that they were unable to use the daily quality assurance reports to verify contractor labor hours billed before payment.

officials acknowledged that they were unable to use the daily quality assurance reports to verify contractor labor hours billed before payment because the reports did not have enough detail to validate individual employee labor hours worked. Furthermore, the ACO acknowledged that USACE Jacksonville

paid for labor hours submitted by the contractor even though the quality assurance reports did not match the invoices. The ACO stated that the contractor invoices were estimates and would be subject to a Government audit later.

²² On December 9, 2017, USACE Louisville District contracting officials awarded a fixed-price contract, W912QR-18-C0007, to a quality assurance services contractor to supplement USACE quality assurance oversight of contract C-0003.

USACE Jacksonville Quality Assurance Reports Could Not Be Used to Verify Contractor Labor Hours Billed

We attempted to verify contractor labor hours billed and contractor employee headcounts using the USACE daily quality assurance reports for contract C-0003. We reviewed a nonstatistical sample of 45 days of USACE daily quality assurance reports for November 10, 2017, through January 28, 2018, to compare the hours and headcount data reported by the quality assurance personnel to the hours and headcount data recorded by the contractor in the timesheet invoice documentation. The contractor provided the timesheet documentation in an Excel spreadsheet and separated subcontractor labor by week in separate worksheets within the overall spreadsheet. Each spreadsheet listed the subcontractor employees' names, hours worked, and labor category billed for that specific pay period. See Appendix D for an example of the worksheet the contractor provided to support labor hours billed on contract C-0003. The USACE daily quality assurance reports cited the number of contractor employees observed at work sites but did not document the names of the contractor employees observed at the work sites. Therefore, we could not match specific employees with the labor hour support submitted with the invoices and concluded that the reports did not have enough detail to validate individual employee labor hours worked.

USACE quality assurance personnel did not record observed labor hours and headcounts for 19 of the 45 days in our sample; therefore, we could not compare these quality assurance reports with the contractor's invoice support. For the 26 days of quality assurance reports that had recorded labor hours and headcounts, we calculated the total number of subcontractor employees and labor hours that USACE quality assurance personnel observed per day. We compared those totals to the totals listed in the contractor's invoice support and found that the contractor reported and billed for higher labor hours and headcounts than USACE quality assurance personnel had observed. For example, USACE quality assurance reports showed 245 subcontractor employees as observed on December 21, 2017. However, the subcontractor spreadsheets supporting the invoice reported 311 employees working that day. On January 7, 2018, the quality assurance reports showed 268 employees, but the subcontractor spreadsheets reported 304 employees for that day.

Contracting Officials Did Not Obtain Adequate Supporting Documentation for Labor Hours Billed

USACE Jacksonville paid for labor costs without adequate supporting documentation. Specifically, subcontractor timesheets did not include employee self-certification of labor hours worked and were manually entered by the subcontractor with no certification from individual employees assuring that those hours were worked. In addition, the invoice documentation that the contractor submitted to support labor hours did not reconcile to what the contractor billed and USACE Jacksonville paid.

Subcontractor Timesheets Were Inadequate

Subcontractor timesheets did not include self-certification of labor hours worked. While not a specific contract requirement, time-and-materials contracts provide no positive profit incentive to the contractor for cost control or labor efficiency, therefore contracting officials should require contractors to submit individually certified timesheets to provide support for labor hours billed. Without individual employee certification of hours worked, the timesheets were not adequate support to demonstrate that hours reported were accurate. For contract C-0003, we reviewed timesheet documentation for invoices six and seven for pay periods November 10, 2017, to January 28, 2018, for 524 employees. The contractor provided the timesheet documentation in an Excel spreadsheet with separate worksheets for each subcontractor. Invoices six and seven contained timesheet documentation for 524 subcontractor employees who performed work on the

There was no evidence within the timesheet documentation that contractor personnel ever reviewed or approved the labor hours.

Puerto Rico power grid. None of the 524 employees signed or initialed their timesheet to certify that the time reported was accurate. Furthermore, there was no evidence within the timesheet documentation that contractor personnel ever reviewed or approved the labor hours. Contractor

personnel explained that the subcontractor would fill out an Excel spreadsheet that acted as a timesheet, and the contractor personnel considered these unsigned sheets to be the support for the hours billed.

Contractor Invoice Documentation Did Not Reconcile to Labor Hours Billed

The contractor submitted supporting documentation for invoices that did not reconcile to labor hours billed and paid on contract C-0003. FAR 31.201-2 requires contractors to maintain adequate supporting documentation to demonstrate that contract costs have been incurred. The supporting documents were manually populated spreadsheets that the contractor provided to support invoice costs.

We attempted to reconcile the contractor invoices to the spreadsheets provided by the contractor for records of labor hours billed and found that three out of seven spreadsheets reviewed did not reconcile to hours billed and paid on invoices five, six, and seven.

Supporting Documentation for Invoice Five

We attempted to reconcile the hours billed for invoice five to the spreadsheet used by the contractor to manually record labor hours and found discrepancies in 10 labor categories listed on invoice five for base camp employees. USACE Jacksonville contracting officials stated that the contractor set up a base camp where the line workers ate, slept, and rested. The camp consisted of mobile homes, tents, and campers, and contractor logistics staff performed various maintenance tasks around the camp. The supporting spreadsheet did not show which daily hours were billed per subcontract employee. Instead, the contractor manually entered the total hours that should have reconciled with hours billed on invoice five. For example, the contractor billed 768 standard hours and 112 premium hours for the base camp manager. However, when we added all hours worked by the two subcontractor employees under this labor category, we calculated a total of 1,160 standard hours and 168 premium hours for the same period billed. The contractor showed total hours summarized in the spreadsheet that matched the amount billed, but the detailed daily hours in the same spreadsheet did not add up to that amount. See Appendix E for all instances in which we found a discrepancy between hours billed and hours recorded for each labor category billed on invoice five.

Supporting Documentation for Invoice Six

We found discrepancies in labor standard and premium hours for five labor categories when we attempted to reconcile labor hours billed on invoice six with supporting documentation the contractor provided. For example, the contractor billed for 4,356 standard hours and 578.50 premium hours for the driver labor category. However, the supporting spreadsheet showed 4,336.40 standard hours and 582.5 premium hours. See Appendix F for all instances in which we found a discrepancy between hours billed and hours recorded for each labor category billed on invoice six.

Supporting Documentation for Invoice Seven

We found discrepancies in labor hours when we attempted to reconcile labor hours billed on invoice seven to supporting documentation provided by the contractor. The contractor disclosed that in two instances, it had inadvertently duplicated hours between two labor categories. For example, the contractor billed

for 64 premium hours in both the general foreman and equipment foreman labor categories. In another example, the contractor billed for 140 premium hours in both the overhead operator and equipment operator labor categories. In addition, the contractor disclosed that hours for two employees were billed to an incorrect labor category. For example, the contractor incorrectly billed for 268 standard hours and 40.50 premium hours in the junior engineer labor category instead of the engineer labor category. Furthermore, the contractor incorrectly calculated the total standby hours to bill on invoice seven. For example, the contractor explained that the mechanic hours were not billed in the correct category, with hours identified as standby hours billed as regular hours. Each labor hour category has different labor rates for standby and regular hours, with regular labor rates being higher than standby rates. See Appendix G for a comparison between the supporting spreadsheet and billed hours for regular and overtime hours billed for these labor categories. See Appendix H for all instances in which we found a discrepancy between standby hours billed and standby hours recorded for each labor category billed on invoice seven.

Contracting Officials Did Not Review Contractor Labor Rates for Invoiced Labor Hours

USACE Jacksonville contracting officials did not review contractor labor rates for invoiced labor hours. The contract requires that the Government pay the hourly rate prescribed in the contract for work performed by the contractor or subcontractor. The USACE Jacksonville ACO stated that contracting personnel did not review or verify contractor labor rates before approving invoices for payment. Additionally, the ACO stated that contracting personnel believed that labor rates from the initial contractor proposal were used throughout the entire invoice process.

Contracting Officials Did Not Verify Contractor Employee Qualifications

USACE Jacksonville contracting officials did not verify whether contractor employees met qualifications for labor categories included in the contract before approving invoices for payment. The contract requires that labor hours incurred on a time-and-materials contract be paid only if the employee who meets the specified contractual qualifications requirements performs the work. However, USACE Jacksonville contracting officials did not include labor qualification requirements for any of the 41 labor categories billed by the contractor on contract C-0003. In addition, USACE Jacksonville contracting officials incorporated the

USACE Safety and Health Requirements Manual into contract C-0003.²³ The USACE manual requires that crane operators be certified, qualified, and designated in writing to operate the equipment.

Contract C-0003 required the contractor to provide qualified personnel to support the power grid repair and restoration work. However, USACE

USACE Jacksonville contracting officials did not define qualifications for any of the 41 labor categories billed by the contractor on contract C-0003.

Jacksonville contracting officials did not define qualifications for any of the 41 labor categories billed by the contractor on contract C-0003. USACE Jacksonville contracting officials stated that they did not review any qualifications before approving invoices for payment.

USACE Time-and-Materials Contract Requirements and Oversight Procedures Were Inadequate

USACE Jacksonville contracting officials did not incorporate required elements of a time-and-materials contract, such as labor qualifications and hourly rates, before approving invoices for payment for contract C-0003, in accordance with Federal regulations. In addition, USACE Jacksonville contracting officials awarded a time-and-materials contract without determining whether the contractor's accounting system was acceptable. Furthermore, USACE Jacksonville contracting officials did not have adequate written quality assurance procedures or written invoice review procedures that ensured adequate Government oversight of contractor labor hours worked and adequate documentation from the contractor to support labor hours billed before payment on contract C-0003.

No Qualifications or Labor Rates Incorporated into Contract Before Approving Invoices

USACE Jacksonville contracting officials did not incorporate labor qualifications and hourly rates in contract C-0003, a time-and-materials contract, before approving invoices for payment. The USACE Jacksonville contracting officer explained that he did not incorporate labor rates into the contract; he instead incorporated the contractor's entire proposal into contract modifications. However, even though the contract was awarded on October 18, 2017, the contracting officer did not incorporate any of the contractor's labor rates into the contract until April 4, 2018. By that time, the USACE Jacksonville contracting officials had already approved invoices one through six for payment.

²³ U.S. Army Corps of Engineers Safety and Health Requirements Manual EM 385-1-1, section 16.B.02, Crane Operator Requirements – General, and section 16.B.03, Crane Operator Certification, Qualification and Designation; dated November 30, 2014.

Additionally, the USACE Jacksonville contracting officer stated that he did not incorporate specific qualifications into contract C-0003. The contracting officer stated that he only incorporated the contractor's proposal into the contract, and he never asked the contractor to define their employees' qualifications. He stated that he relied on the contractor to follow whatever internal processes the company may have had to ensure the employees were qualified. The contract requires the Government to pay for labor performed on the contract only if the labor meets the rate and labor qualifications specified in the contract.

The USACE Commanding General should develop, implement, and require training on standard operating procedures for incorporating elements that should be included in future time-and-materials contracts, as required by the FAR, such as job qualifications and labor rates.

No Contractor Accounting System Review

USACE Jacksonville contracting officials awarded a time-and-materials contract without determining whether the contractor's accounting system was acceptable. DFARS 242.7502 requires that the contracting officer approve or disapprove the

USACE Jacksonville contracting officials awarded a time-and-materials contract without determining whether the contractor's accounting system was acceptable.

contractors accounting system for all time-and-materials contracts. DFARS 252.242-7006 defines an acceptable accounting system as a system that provides reasonable assurance that:

- applicable laws and regulations are complied with,
- accounting system and cost data are reliable,
- risk of misallocations and mischarges are minimized, and
- contract allocations and charges are consistent with billing procedures.

The USACE Jacksonville contracting officer stated that he did not review the contractor's accounting system before contract award because he believed that the requirement to review an accounting system pertained only to cost type contracts and not time-and-materials contracts. Additionally, the contracting officer stated that he did not review the accounting system because he believed if the Government paid negotiated rates for the labor billed, then the Government did not need to ensure the contractor's cost accounting system was acceptable.

In a letter dated March 14, 2018, the USACE Jacksonville contracting officer initially rejected invoice seven, valued at \$32.9 million, from contract C-0003 for payment. USACE contracting officials stated that they requested that the DCAA perform a cursory review of the invoice before payment. The letter stated that DCAA

representatives found that the accounting system information did not appear to show that transactions were recorded in the accounting books. In a letter dated March 20, 2018, a contractor executive provided a response to the rejection letter. In the letter, the contractor executive stated that contractor personnel record transactions for the contract within the accounting system as costs are incurred. The contractor executive explained that after contractor personnel receive and approve invoices from subcontractors, those costs are recorded in the accounting system and the approved hours and costs are invoiced to USACE.

According to contracting officials, DCAA representatives informed them in March 2018 that the contractor's process to capture labor for contractor and subcontractor employees was not reliable because it relied on manual input by a superintendent or an onsite supervisor, rather than the actual employees, to capture labor hours worked. However, the USACE Jacksonville contracting officer explained that he ultimately approved invoice seven for payment without any review or determination of the acceptability of the contractors accounting system.

The USACE Commanding General should develop, implement, and require training on standard operating procedures that require contracting officers to review a contractor's accounting system to determine whether the system presents accurate and reliable cost data, and require the contractor to take appropriate steps to fix any identified deficiencies, in all future time-and-materials contracts.

DCAA Could Not Perform Invoice Audit Because of Time-and-Materials Contract Omissions

On May 14, 2018, the USACE Jacksonville contracting officer requested DCAA assistance to audit costs on invoices one through seven to determine whether the previously paid amounts were allowable on contract C-0003. DCAA officials stated that they were unable to perform a voucher review on invoices one through seven because:

- contract C-0003 did not contain labor rates or labor qualifications;
- DCAA officials could not audit approximately 88 percent of subcontractor costs; and
- DCAA officials had no assurance that the contractor could accurately account for contract costs or generate accurate supporting documentation for contract C-0003 without an acceptable accounting system.

DCAA officials stated that, during their audit risk assessment for the invoice review, they determined that subcontractors incurred 96 percent of the billed costs on the invoices. DCAA officials explained that they reviewed subcontractor agreements for three subcontractors and found that two of the three agreements

did not contain a required FAR clause for time-and-materials contracts, which would allow the DCAA to audit those subcontractor costs.²⁴ According to DCAA officials, those two subcontractors represented 88 percent of the billed costs from invoices one through seven.

Quality Assurance Processes Were Inadequate

USACE Jacksonville contracting officials did not have adequate written quality assurance surveillance procedures for contract C-0003. The USACE Jacksonville contracting officer stated that he did not develop a quality assurance surveillance plan for contract C-0003. Additionally, the ACOs and CORs stated that they did not develop written quality assurance procedures for the contract. USACE Jacksonville contracting officials stated that USACE generally does not use quality assurance surveillance plans for construction contracts so they did not develop one for contract C-0003.

USACE contracting officials stated that there were about 15 contractor teams spread out across Puerto Rico for contract C-0003, and the contractor assigned each team to a certain area of the island. USACE Jacksonville contracting officials stated that USACE oversight was set up to cover each contractor team by having about two to three USACE quality assurance personnel with each of the contractor teams daily. The USACE oversight teams developed daily quality assurance reports that, at a minimum, included daily summaries of power grid work, the number of contractor and subcontractor employees, including their labor categories and observed hours, and types of equipment and materials used.

USACE Jacksonville contracting officials stated that working conditions in Puerto Rico were extremely difficult, and the quality assurance personnel worked in areas with no power, cellphone, or GPS service. Additionally, USACE Jacksonville contracting officials explained that quality assurance personnel were

USACE Jacksonville contracting officials stated that it was impossible to match the quality assurance reports to contractor invoice documentation.

constantly changing, making it difficult to keep the quality assurance process running smoothly. Therefore, USACE Jacksonville contracting officials stated that it was impossible to match the quality assurance reports to contractor invoice documentation.

²⁴ FAR Part 52, "Solicitation Provisions and Contract Clauses," Subpart 52.2, "Text of Provisions and Clauses," Clause 52.216 7, "Allowable Cost and Payment."

The USACE Commanding General should develop, implement, and require training on standard operating procedures for a method of surveillance that would allow contracting officials to test the validity of labor billed on future time-and-materials contracts.

Invoice Review Process Was Inadequate

USACE Jacksonville contracting officials did not have an adequate invoice review process in place to verify labor hours billed before payment. The USACE Jacksonville contracting officer stated that he did not develop written invoice review procedures for contract C-0003. USACE contracting officials stated that they attempted to set up invoice review processes, but the processes changed as USACE personnel came to and left the island. USACE Jacksonville contracting officials stated that at the beginning of contract C-0003, USACE performed a cursory review of the invoices, but did not have a process to reconcile labor hours billed. USACE Jacksonville contracting officials stated that there was not enough information in the daily quality assurance reports for contracting personnel to verify whether contractor and subcontractor employees worked the hours they billed on a given day.

For invoices one and two, the ACO stated that the contracting personnel performed a spot check of the USACE daily quality assurance reports for the number of employees observed and compared the results to the contractor's invoices. The ACO stated that she felt confident that there was reasonable assurance that the numbers were accurate so she approved the invoices. However, she was unable to explain any differences between the USACE-reported headcounts and contractor billed headcounts and had no documentation of her review.

For invoices three, four, and five, the ACO stated that the COR compared the invoices to the USACE daily quality assurance reports and the contractor's quality control reports. The ACO found that 100-percent confirmation between the invoice totals and the daily quality assurance and quality control reports was not possible. The ACO processed the invoices because he determined that the percentage of work completed on the contract was above the billed percentages of the contract line item numbers on the invoices.

For invoice six, USACE Jacksonville contracting officials stated that there was no established invoice review process. USACE Jacksonville contracting officials explained that they made several efforts to verify contractor headcounts, including trying to set up a process for quality assurance personnel to perform daily counts of employees observed working, but it was difficult to reconcile to the contractor-reported amounts. Additionally, USACE Jacksonville contracting officials

The situation in Puerto Rico was chaotic and USACE oversight personnel never knew where contractor personnel were going to be at various times of the day.

stated that the situation in Puerto Rico was chaotic and USACE oversight personnel never knew where contractor personnel were going to be at various times of the day. Therefore, they were never able to develop a good system

to track the number of contractor employees and their hours worked due to the magnitude of contractor employees who were in Puerto Rico.

Additionally, USACE contracting officials stated that for invoice seven, they attempted to create a process to reconcile labor hours and contractor headcounts, but they were still unable to reconcile the amounts reported on the invoices.

The informal invoice review procedures for invoices one through seven did not require contracting officials to:

- verify that contractor employees met qualifications for labor categories,
- verify that labor hours billed were accurate, and
- review labor rates from contractor invoiced labor hours.

The USACE Commanding General should develop, implement, and require training on standard operating procedures for:

- interim voucher reviews for future time-and-materials contracts, and
- requiring contractors to submit individually certified timesheets in future time-and-materials contracts.

USACE Jacksonville Potentially Overpaid on Interim Invoices for the Repair and Restoration of Electric Power Grid in Puerto Rico

USACE Jacksonville contracting officials did not incorporate labor qualifications and labor rates into contract C-0003 before approving invoices for payment, as required by the FAR. Additionally, USACE quality assurance personnel did not perform and document oversight of individual employee labor hours worked in a manner that would allow contracting officials to determine whether contractor labor hours billed were accurate. Furthermore, USACE Jacksonville contracting officials did not obtain adequate supporting documentation for labor hours billed, such as adequate timesheets, and did not determine whether the contractor's accounting system was acceptable to adequately support labor costs billed, as required by DFARS. We were unable to validate any labor hours USACE Jacksonville contracting officials approved for payment on invoices six and seven.

DCAA officials stated that they were unable to perform a voucher review on invoices one through seven because the contract did not contain labor rates or labor qualifications.

The officials also stated that they could not audit approximately 88 percent of subcontractor costs and had no assurance that the contractor could accurately account for contract costs without an acceptable accounting system.

DCAA officials stated that they were unable to perform a voucher review on invoices one through seven.

As a result, USACE contracting officials do not know whether any of the labor costs paid on seven invoices, valued at approximately \$61.3 million, were allowable in accordance with Federal regulations, DoD regulations, or terms of the contract. Specifically, we identified \$29.2 million of labor costs on invoices six and seven that were unsupported and potentially unallowable. See Appendix B for unsupported costs for contract C-0003. The Commander of the USACE Jacksonville District should direct the contracting officers to review all labor and material costs invoiced by the contractor and work with DCAA officials to develop a total contract cost reduction to reduce total costs for contract C-0003 if contracting officials are unable to determine whether costs are allowable.

Management Comments on the Finding and Our Response

The USACE Commanding General provided a combined response to Findings A and B. Therefore, please see Management Comments on the Finding and Our Response in Finding A for the Commanding General's comments on the finding and our response.

Management Comments on Potential Monetary Benefits

A summary of management comments on potential monetary benefits and our response is in Appendix B.

Recommendations, Management Comments, and Our Response

Recommendation B.1

We recommend that the Commanding General of the U.S. Army Corps of Engineers develop, implement, and require training on standard operating procedures that require:

- a. Detailed quality assurance surveillance plans for all current and future time-and-materials contracts. The plans should include surveillance checklists, which at a minimum, provide enough information for contracting officials to help verify labor hours on contractor invoices on time-and-materials contracts.
- b. Detailed invoice review procedures for all current and future time-and-materials contracts. The procedures should include, at a minimum, detailed guidance on reviewing whether the contractor met labor category qualifications, obtaining and reviewing adequate supporting documentation for labor hours and materials billed, and determining whether labor rates billed match labor rates incorporated into the contract.
- c. Specific labor qualifications and labor rates for all contract labor categories in all current and future time-and-materials contracts.
- d. Review of a contractor's accounting system to determine whether the system presents accurate and reliable cost data in compliance with applicable regulations before awarding all future time-and-materials contracts.
- e. Contractors to submit individually certified timesheets for labor on all current and future time-and-materials contracts.

U.S. Army Corps of Engineers Comments

The USACE Commanding General agreed with our recommendation and stated that the Director of Contracting tasked all USACE contracting officers to take the Defense Acquisition University's time-and-materials training course and to review this DoD OIG report for lessons learned. Additionally, the Director released checklists to be used by CORs, including a quality assurance surveillance plan checklist and a payment approval/recommendation checklist. The Director ordered copies of the DoD Contingency COR Handbook to be used by staff while supporting contingency operations. Additionally, the Director will include time-and-materials contracts as a special interest item in the procurement management review process by October 30, 2019.

Our Response

The USACE Commanding General's comments partially addressed the recommendation; therefore, the recommendation is unresolved. Although the Director of Contracting distributed checklists for the CORs and tasked the USACE contracting officers to take a time-and-materials training course, the response was not clear on whether the checklists would provide enough information for contracting officials to verify labor hours on contractor invoices on time-and-materials contracts. Additionally, the comments did not address whether the payment approval/recommendation checklist contained detailed guidance on reviewing whether the contractor met labor category qualifications, obtaining and reviewing adequate supporting documentation for labor hours and materials billed, and determining whether labor hours billed exceed contractual requirements for maximum allowable weekly hours. The Commanding General's comments also did not address whether training for USACE contracting officers would include the specifics in Recommendations B.1.a through B.1.e. Furthermore, the Commanding General's comments do not address requiring specific labor qualifications and requiring contractors to submit individually certified timesheets for labor on all current and future time-and-materials contracts. Therefore, the USACE Commanding General should provide comments to the final report clarifying whether the contents of the checklists address the specifics in the recommendations, whether contracting officers will receive training to address the specifics in the recommendations, the review of the contractors accounting system before awarding all future time-and-materials contracts, the recommended inclusion of labor categories in future time-and-materials contracts, and requiring contractors to submit individually certified timesheets.

Recommendation B.2

We recommend that the Commanding General of the U.S. Army Corps of Engineers perform a review of the concerns addressed in this report regarding contract W912EP-18-C-0003, identify responsible personnel, and initiate as appropriate any administrative actions warranted by the review.

U.S. Army Corps of Engineers Comments

The USACE Commanding General agreed with our recommendation and stated that the Director of Contracting will perform a review of contract W912EP-18-C-0003 and make any necessary corrections and recommendations to ensure future responses to contingency operations are executed consistently. The Director will also prepare an after action report and provide lessons learned to the contracting community by December 15, 2019.

Our Response

The USACE Commanding General's comments partially addressed the recommendation; therefore, the recommendation is unresolved. We request the Commanding General clarify what will be reviewed related to contract W912EP-18-C-0003, identify responsible personnel, and initiate as appropriate any administrative actions warranted by the review.

Recommendation B.3

We recommend that the Commander of the U.S. Army Corps of Engineers, Jacksonville District, direct contracting officials to review all labor and material costs for contract W912EP-18-C-0003 and determine whether they are supportable and allowable in accordance with Federal Acquisition Regulation 31.201-2, "Determining Allowability," and provide the DoD Office of Inspector General with the results of the review. If contracting officials are unable to determine whether costs are allowable, they should work with Defense Contract Audit Agency officials to develop a total contract cost reduction to reduce total costs for contract W912EP-18-C-0003.

U.S. Army Corps of Engineers Comments

The USACE Commanding General agreed with our recommendation and stated that, in accordance with FAR 52.216-7, "Allowable Cost and Payment," and FAR 52.232-7, "Payments Under Time and Materials and Labor-Hour Contracts," the contracting officers are performing an audit of the vouchers and supporting documentation before final payment on the contracts. The Commanding General added that the DCAA is assisting USACE and the planned completion of the audit is January 2020.

Our Response

The USACE Commanding General's comments partially addressed the recommendation; therefore, the recommendation is unresolved. The USACE Commanding General should provide comments to the final report clarifying the planned course of action if contracting officials are unable to determine whether costs are allowable and a total contract cost reduction will occur. We request that the USACE Commanding General provide the audit results of the vouchers and supporting documentation on contract W912EP-18-C-0003.

Appendix A

Scope and Methodology

We conducted this performance audit from March 2018 through July 2019 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. The contractors were provided the opportunity to review and comment on relevant portions of the draft report, and any comments provided were considered in preparing the final report.

To determine whether USACE adequately monitored contractor performance, and accurately reviewed and paid invoices for the Puerto Rico power grid repair and restoration contracts, we interviewed and obtained documentation from USACE Headquarters personnel, contract oversight personnel responsible for monitoring contractor performance, and USACE contract office personnel responsible for reviewing and approving payments for the contracts. We pulled contract documentation from Paperless Contract Files and USACE's Resident Management System.²⁵ We also interviewed and obtained documentation from the contractors.

We visited:

- USACE Headquarters;
- U.S. Army Engineering and Support Center, Huntsville, Alabama; and
- USACE Jacksonville District, Jacksonville, Florida.

In addition, we reviewed the following guidance.

- FAR Subpart 7.5, "Inherently Government Functions"
- FAR Subpart 16.6, "Time-and-Materials, Labor-Hour, and Letter Contracts"
- FAR Subpart 31.2, "Contracts With Commercial Organizations"
- FAR Part 46, "Quality Assurance"
- FAR Clause 52.222-54, "Employment Eligibility Verification"
- FAR Clause 52.232-7, "Payments Under Time-and-Materials and Labor-Hour Contracts"
- FAR Clause 52.236-13, "Accident Prevention"
- DFARS Subpart 242.8, "Disallowance of Cost"

²⁵ The Resident Management System is a system used by USACE's field offices and contractors for management of construction contracts through tracking and documentation of all facets of a contract.

- DoD Financial Management Regulation, Volume 10: “Contract Payment Policy, Chapter 10: Payment Voucher – Special Applications”
- DoD Directive 5105.36, “Defense Contract Audit Agency”
- DoD Contingency COR Handbook
- Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics Memorandum, “Approving Payments under Cost-Reimbursement, Time-and-Materials, and Labor-Hour Contracts,” April 14, 2008
- U.S. Army Corps of Engineers Safety and Health Requirements Manual EM 385-1-1, effective November 30, 2014

Invoices Selected for Review

We performed our analysis of invoices paid by USACE as of May 2018. For contract F-0003, we selected invoices one through six for a total payment of \$286.5 million for costs billed up to February 16, 2018. From these six invoices, we focused our testing on labor costs paid by USACE to the contractor. Labor costs paid totaled \$240.1 million, or 84 percent, of total payments. For contract F-0032, we selected invoices one through five for a total payment of \$38.6 million for costs billed up to March 2, 2018. From these five invoices, we focused our testing on labor costs paid by USACE to the contractor. Labor costs paid totaled \$18.9 million, or 49 percent, of total payments. See Table 1 for the value of each invoice in our scope, by contract, and broken out by labor and materials.

For contract C-0003, we selected invoices one through seven for a total payment of \$100.4 million for costs billed up to February 18, 2018. From these seven invoices, we focused our testing on labor costs that USACE paid to the contractor. Labor costs paid totaled \$61.3 million, or 61 percent, of total payments. See Table 2 for the value of each invoice in our scope, by contract, and broken out by labor and materials.

Table 1. Value of Invoices in Our Scope for Contracts F-0003 and F-0032

Contract No.	Invoice No.	Labor Amount	Materials Amount	Total
W912DY-18-F0003	1	\$3,692,461.04	\$11,230,102.87	\$14,922,563.91
W912DY-18-F0003	2	\$8,160,291.67	\$3,206,004.59	\$11,366,296.26
W912DY-18-F0003	3	\$71,200,694.90	\$11,324,697.56	\$82,525,392.46
W912DY-18-F0003	4	\$89,032,341.47	\$3,744,240.35	\$92,776,581.82
W912DY-18-F0003	5	\$12,566,523.91	\$14,126,375.20	\$26,692,899.11
W912DY-18-F0003	6	\$55,461,918.02	\$2,796,108.44	\$58,258,026.46
Total	1-6	\$240,114,231.01	\$46,427,529.01	\$286,541,760.02

Table 1. Value of Invoices in Our Scope for Contracts F-0003 and F-0032 (cont'd)

Contract No.	Invoice No.	Labor Amount	Materials Amount	Total
W912DY-18-F0032	1	\$0	\$2,239,713.09	\$2,239,713.09
W912DY-18-F0032	2	\$0	\$603,532.48	\$603,532.48
W912DY-18-F0032	3	\$1,570,715.57	\$9,010,069.31	\$10,580,784.88
W912DY-18-F0032	4	\$4,298,110.10	\$2,951,046.62	\$7,249,156.72
W912DY-18-F0032	5	\$13,007,551.19	\$4,870,086.54	\$17,877,637.73
Total	1-5	\$18,876,376.86	\$19,674,448.04	\$38,550,824.90

Source: The DoD OIG.

Table 2. Value of Invoices in Our Scope for Contract C-0003

Contract No.	Invoice No.	Labor Amount	Materials Amount	Total
W912EP-18-C0003	1	\$0	\$1,154,083.33	\$1,154,083.33
W912EP-18-C0003	2	\$1,496,756.44	\$318,405.23	\$1,815,161.67
W912EP-18-C0003	3	\$22,054,039.93	\$10,268,968.91	\$32,323,008.84
W912EP-18-C0003	4	\$78,186.96	\$85,865.33	\$164,052.29
W912EP-18-C0003	5	\$1,786,344.48	\$15,665,490.00	\$17,451,834.48
W912EP-18-C0003	6	\$11,530,203.99	\$3,143,057.28	\$14,673,261.27
W912EP-18-C0003	7	\$24,368,647.19	\$8,486,740.52	\$32,855,387.71
Total	1-7	\$61,314,178.99	\$39,122,610.60	\$100,436,789.59

Source: The DoD OIG.

Method Used to Determine Whether USACE Had Appropriate Surveillance of Contractor Performance and Adequate Support for Hours Worked on Contracts F-0003 and F-0032

To determine whether the contractor provided adequate support to demonstrate that costs have been incurred, we selected invoice four for contract F-0003 for review because it had the highest labor amount in our scope of invoices one through six. We reviewed all timesheets submitted for the three subcontractors performing repair and restoration work for pay period December 18, 2017, to December 24, 2017. We reviewed the timesheets for individual certification of hours worked, as well as approval signatures and dates. We then took a nonstatistical sample of 45 timesheets that we reviewed and looked at the corresponding contractor daily quality control reports. Because the reports cited employee names, work performed, and hours worked, we considered signed reports as individual certification of hours worked.

We selected invoice five for contract F-0032 for review because the contract had the highest labor amount in our scope of invoices one through five. We reviewed all timesheets submitted for one subcontractor for pay period January 22, 2018, to January 28, 2018, and all timesheets for a second subcontractor for pay period January 29, 2018, to February 4, 2018. We reviewed timesheets for individual certification of hours worked, as well as approval signature and dates. We also took a nonstatistical sample of 45 timesheets to review corresponding contractor daily quality control reports for individual certification of hours worked. To test USACE surveillance of contractor labor hours worked, we used our sample of 45 timesheets for contract F-0003 and reviewed corresponding USACE daily quality assurance reports to determine whether we could use the quality assurance reports that USACE quality assurance personnel created to support contractor labor hours billed and paid. Because USACE contracting personnel stated that they did not and could not use the daily quality assurance reports to validate or refute contractor labor hours billed, and we confirmed that the reports could not be used with our sample for contract F-0003, we did not test timesheets against quality assurance reports for contract F-0032.

Method Used to Determine Whether USACE Paid Unsupported Labor Hours Charged Before Employees' Arrival Dates to Puerto Rico on Contracts F-0003 and F-0032

We reviewed a nonstatistical sample of 207 out of 3,030 employees' arrival dates to Puerto Rico for both contracts F-0003 and F-0032 to determine whether USACE paid labor hours for employees who had arrived and performed work at a job site in Puerto Rico. We determined deployment statuses for 185 out of the 207 employees.

We obtained from the contractor the voucher and supporting documentation for travel dates and labor hours charged for all 185 employees selected in our samples. Supporting documentation for travel dates included travel tickets and flight manifests. Supporting documentation for labor hours included weekly timesheets. For each of the 185 employees, we:

- traced the employee's name to the corresponding travel tickets or flight manifest to determine the employee's arrival date in Puerto Rico;
- traced the arrival dates to the employee's weekly timesheets;
- compared the dates of employee's arrival to the timesheet's dates for hours charged for work performed on the island;

- identified from the employee's timesheet all hours billed by the contractor before the employee's arrival date to Puerto Rico; and
- verified whether the employee was present on the island for labor hours billed.

We questioned all hours billed that we identified in the employee's timesheet before the employee's arrival date that did not have adequate supporting documentation.

Method Used to Determine Whether USACE Paid Labor Hour Costs for Unsupported Work Performed and Overtime on Contracts F-0003 and F-0032

We selected a nonstatistical sample of 77 out of 185 employees' timesheets between the pay periods of November 3, 2017, and February 16, 2018, on contracts F-0003 and F-0032 to determine whether USACE paid invoices without documentation to support that employees performed work on the contract, in accordance with FAR 31.201-2. In addition, we determined whether USACE paid overtime without documentation to support why overtime was necessary.

We obtained supporting documentation for work orders, travel dates, employee timesheets, and contractor daily quality control reports for all 77 employees in our sample. For each employee, we:

- reviewed timesheets to determine whether the work order numbers used to charge labor hours were assigned line work;
- reviewed daily quality control reports for support of labor hours that were not assigned line work;
- determined whether there was support for work performed;
- determined whether overtime labor hours charged were reasonable; and
- determined total labor hours USACE paid without adequate support of labor hours charged.

We questioned all hours billed that we identified in the employee's timesheet without adequate supporting documentation of work performed.

Method Used to Determine Whether Employees Met Labor Qualifications on Contracts F-0003 and F-0032

We reviewed a nonstatistical sample of employees from contracts F-0003 and F-0032 to determine whether the labor hours that USACE paid were for employees who met the corresponding years of experience requirements for contract F-0032 and the license requirements required by the USACE Safety and Health Requirements Manual for both contracts.

We obtained detailed transaction spreadsheets from the contractor's accounting system showing all labor costs billed corresponding to the selected invoices for both contracts. The detailed transactions included 133 labor categories billed for contract F-0003 and 97 labor categories for contract F-0032. We analyzed the detailed transactions from both contracts by labor category and determined our universe for sample selection based on labor categories with the highest labor costs paid. For contract F-0003, we selected 10 labor categories that represented 90 percent (\$216,271,570) of total labor costs paid by USACE for invoices one through six. For contract F-0032, we selected nine labor categories that represented 90 percent (\$16,897,164) of total labor costs paid by USACE for invoices one through five. Based on our selection of labor categories, we determined our labor population included 2,263 employee names from contract F-0003 and 767 employee names from contract F-0032.²⁶ We provided the data to analysts from the DoD OIG Quantitative Methods Division, and they selected a nonstatistical sample of 133 out of 2,263 employees for contract F-0003 and 74 out of 767 employees for contract F-0032, for our review. We reviewed contracts F-0003 and F-0032 and USACE Safety and Health Requirements Manual, EM 385-1-1, and determined labor qualification requirements for 9 out of the 133 employees under contract F-0003 and 72 out of 74 employees under contract F-0032.

We reviewed license requirements from the USACE Safety and Health Requirements Manual, EM 385-1-1 for contracts F-0003 and F-0032, and obtained certification requirements for the crane operator labor category.

We reviewed contracts F-0003 and F-0032 and obtained the specific years of experience requirements for the following seven out of the nine labor categories under contract F-0032.

- Overhead General Foreman
- Overhead Lineman – Journeyman
- Overhead Line Foreman
- Overhead Lineman – Apprentice
- Groundman
- Heavy Equipment Operator (Crane Operator)
- Superintendent

²⁶ Some employee names appeared multiple times because the contractor billed labor for those employees under different labor categories, during different pay periods.

We also obtained and reviewed from the contractor the job description for each of the labor categories in our sample. We reviewed supporting documentation provided by the contractor that included employee's resume, applications, training certificates, and credentials such as certifications or designation licenses. We reviewed each employee's qualifications in accordance with the labor category's contract requirements, such as years of experience and certificates.

We questioned all hours paid by USACE for employees in our sample who did not meet the required years of experience for contract F-0032 or did not possess the required certifications or that the contractor was not able to provide supporting documentation for contracts F-0003 and F-0032.

Method Used to Determine Paid Labor Hours Above the Maximum Weekly Hours Allowed on Contracts F-0003 and F-0032

We reviewed contract requirements and the USACE Safety and Health Requirements Manual for limitation of hours per week for each employee. We obtained detailed transaction spreadsheets from the contractor's accounting system showing all labor costs billed corresponding to the selected invoices for both contracts. The DoD OIG Data Analytics Division used SAS Enterprise Guide Software to create an SAS dataset based on the data provided and summarized the data for variables "Labor Hours" and "Billed Amount" whenever the "Employee Contractor Name," "Time_Type," and contractor "Week_End_Date" were the same. The analyst provided the output table as an Excel spreadsheet. We analyzed the detailed transaction spreadsheets by weekly pay periods. Contract F-0003 included 18 pay periods. Contract F-0032 included nine pay periods.

We obtained a list of all employees' weekly labor hours billed and paid for each pay period from the detailed transaction spreadsheets and identified all instances when employee weekly labor hours exceeded 84 hours, including regular and overtime, in 1 pay period. We identified 3,612 instances in which an employee had more than 84 hours in 1 week in contract F-0003 and 23 instances in contract F-0032. Based on these instances, we further verified 12 instances in which an employee had 80 regular hours to verify whether the employee's name corresponded to two individuals. We obtained additional supporting documentation from the contractor showing any two individuals with the same name, such as employee identification cards, job applications, and timesheets, and identified the correct total weekly hours per individual.

We obtained assistance from the DoD OIG Data Analytics Division to consolidate labor hours and billed amount from the contractor's detailed transaction spreadsheet whenever the employee subcontractor name, time type, labor rate,

and contractor week-end date were the same. We used the DoD OIG Data Analytics Division consolidated spreadsheet to identify each instance in which an employee had more than 84 weekly hours in accordance with USACE Safety and Health Requirements Manual. For each of these instances, we questioned all hours over the maximum of 84 weekly hours for an employee at the overtime labor rate billed.

Method Used to Calculate Unsupported Costs on Contracts F-0003 and F-0032

From the labor qualifications analysis, we obtained the names of employees who did not meet minimum labor qualifications. Additionally, we obtained the total hours billed in question by employee, per pay period, which were in excess of weekly hours permitted. Finally, we obtained the total hours billed in question by employee, per pay period, that did not have adequate supporting documentation for labor hours billed. Specifically, we obtained:

- labor hours billed for subcontractor timesheets that did not include employee self-certification;
- labor hours billed without documentation to support that employees performed work on the contracts before arriving in Puerto Rico; and
- labor hours billed without documentation to support that employees performed work on the contract and that overtime was necessary.

Duplicate Unsupported Hours Methodology

Each analysis in Finding A was conducted simultaneously and independently. Therefore, we removed duplicate hours in question. We used the following method to remove duplicate unsupported hours.

- First, we combined all results for hours in question that had inadequate supporting documentation, and hours in excess of weekly hours permitted.
- Next, we identified the employees who did not meet labor qualifications and removed them from the analysis.
- We identified the employees, per pay period, who did not have adequate supporting documentation and billed in excess of weekly hours permitted.
 - If the employee who did not have adequate supporting documentation had less than 84 unsupported hours, we combined the unsupported hours.
 - If the employee who did not have adequate supporting documentation had more than 84 hours, we removed the excess unsupported hours.
- For the remaining employees, we identified all duplicate unsupported hours per pay period, and determined the pay period with the most hours. We removed all hours that were below the maximum unsupported hours.

Calculating Unsupported Cost Analysis

We questioned all hours billed that we identified after removing duplicate unsupported hours. To calculate unsupported costs, we excluded the unsupported hours billed for that timesheet to determine the total labor hours charged with support. Based on these hours, we re-calculated supported labor costs by applying the regular rate to the first 40 hours charged and the overtime rate for any additional hours to identify the total labor costs paid with support. We questioned the unsupported labor costs billed based on the difference in amount of total labor costs originally paid and the labor costs paid with support.

Method Used to Determine Whether USACE Obtained Adequate Supporting Documentation for Contract C-0003

We obtained from the contractor a spreadsheet used to record hours worked by employees and subcontractor employees for invoices with labor hours billed, which were invoices two through seven. We also obtained invoices the contractor had submitted for payment by USACE for contract C-0003 and the schedule of progress payments USACE paid on this contract from the Resident Management System. We compared the standard, premium, and standby labor hours billed for each of the labor categories to the supporting spreadsheets for invoices two through seven. For each discrepancy found in our attempt to reconcile the hours billed to supporting documentation, we obtained explanations from the contractor.

Method Used to Determine Whether USACE Had Appropriate Surveillance of Contractor Performance and Adequate Support for Hours Worked on Contract C-0003

We reviewed the contractor's timesheet documentation submitted in support of the power grid repair and restoration labor costs for invoices six and seven to determine the adequacy of supporting documentation for the hours worked on contract C-0003. We evaluated this documentation and considered USACE and contractor interview responses to determine the contractor's compliance with the FAR and its substantiation requirements for time-and-materials contracts.

We compared USACE daily quality assurance-observed labor hours and quantities of contractor personnel with the hours and headcounts claimed by the contractor to determine whether USACE had appropriate surveillance of contractor performance. Specifically, we obtained the contractor's timesheet support for invoices six and seven and USACE's daily checklist reports prepared by quality assurance personnel. The checklists included observed quantities of contractor personnel and the hours they were observed performing work for the contract.

We selected a nonstatistical sample of 45 days during the period for invoices six and seven to compare the quality assurance-observed labor hours and employee quantities with the headcounts and labor hours claimed by the contractor in their timesheet support.

Method Used to Review Labor Rates on Contract C-0003

We obtained from the USACE Jacksonville contracting office 11 different contractor proposals that contained labor rates for the C-0003 contract. We analyzed the proposals along with the language in contract C-0003 and its modifications to determine when the contracting office incorporated the proposals into the contract. We also analyzed the labor rates contained in the proposals for all labor categories to determine whether the labor rates changed across the different proposals.

Method Used to Calculate Unsupported Costs on Contract C-0003

We questioned all labor for employees who performed power grid repair and restoration work on invoices six of seven for contract C-0003 because USACE Jacksonville contracting officials did not incorporate labor qualifications into contract C-0003. Additionally, USACE Jacksonville contracting officials did not obtain adequate supporting documentation for labor hours billed, such as adequate timesheets, and did not require the contractor to have or maintain an acceptable accounting system to adequately support labor costs billed.

Use of Computer-Processed Data

We used contractor-provided computer-processed data of detailed labor and materials costs billed to USACE for two of the Puerto Rico power grid repair and restoration contracts. The contractor provided the data in form of Excel spreadsheets, for invoices 1 through 10 for contract W912DY-18-F-0003 and invoices 1 through 8 for contract W912DY-18-F-0032. We focused our review on the invoices that USACE had paid as of the time of our review, May 2018, which were invoices one through six for contract W912DY-18-F-0003 and invoices one through five for contract W912DY-18-F-0032. We also obtained the total invoices that the contractor had submitted for payment by USACE for both contracts.

In addition, we obtained the schedule of progress payments USACE paid on both contracts from the Resident Management System. The Resident Management System was able to perform electronic exchange with the Corp of Engineers Financial Management System to download financial data, including contractor progress payments. We compared the amounts of the progress payments that USACE paid to the contractor to the amounts on the actual invoices from the contractor for both contracts, and the amounts matched for all invoices except one. For that one invoice, USACE contracting office personnel explained that the difference was due to lack of supporting documentation for part of the contractor's request, so USACE did not pay for that portion of the invoice. We accepted USACE's explanation. We then broke out the transactional labor and material costs billed, by invoice and contract line item number, and compared those amounts to the invoices provided by the contractor. We determined that the transactional labor and materials costs spreadsheets provided by the contractor were reliable for the purposes of this audit.

Use of Technical Assistance

The DoD OIG Quantitative Methods Division helped us develop a nonstatistical sample for determining whether the contractor employees met labor qualifications specified in the contract or in the USACE Safety and Health Requirements Manual.

The DoD OIG Data Analytics Division helped us consolidate the contractor's detailed transaction spreadsheet to show total labor hours and billed amount whenever the employee subcontractor name, time type, labor rate, and contractor week-end date were the same to identify all instances in which the contractor billed for more than 84 hours in a week for one employee. We questioned any hours over the maximum of 84 weekly hours in accordance with USACE Safety and Health Requirements Manual.

The Technical Assessment Directorate helped us review regulations to identify labor category specific requirements based on industrial standards. We did not identify any specific qualifications in addition to those stipulated in the contracts and USACE Safety and Health Requirements Manual.

Prior Coverage

During the last 5 years, the GAO and the DoD OIG issued three reports discussing USACE disaster relief operations for monitoring contractor performance and invoice review. Unrestricted GAO reports can be accessed at <http://www.gao.gov>. Unrestricted DoD OIG reports can be accessed at <http://www.dodig.mil/reports.html/>.

GAO

Report No. GAO-19-296, “2017 Hurricane Season: Federal Support for Electricity Grid Restoration in the U.S. Virgin Islands and Puerto Rico,” April 2019

According to the report, various factors affected Federal support for electricity grid restoration. For example, getting the crews and materials needed to islands was more difficult and time-consuming than on the mainland. In Puerto Rico, the Puerto Rico Electric Power Authority was insolvent, which presented challenges for restoring the grid. In addition, FEMA did not anticipate or plan for the extensive Federal role in grid restoration in Puerto Rico, and USACE did not have a contract in place to immediately initiate grid repair efforts, according to USACE officials. FEMA and USACE identified potential actions to address these challenges, such as reviewing advance contracts.

DoD OIG

Report No. DODIG-2019-043, “U.S. Army Corps of Engineers Oversight of Temporary Emergency Power Contracts Awarded for Hurricanes Harvey and Irma,” January 3, 2019

The DoD OIG determined that USACE oversight personnel did not properly monitor and assess contractor performance, in accordance with Federal and DoD contracting guidance, on three service contracts for temporary emergency power for disaster recovery in response to Hurricanes Harvey and Irma.

Report No. DODIG-2016-028, “U.S. Army Corps of Engineers, New York District Monitoring of a Hurricane Sandy Contract Needs Improvement,” December 3, 2015

The DoD OIG determined that a COR from USACE’s New York District effectively monitored contractor performance for two of the three Hurricane Sandy contracts reviews. However, the COR did not effectively monitor contractor performance for one contract. In addition, the COR’s monthly reports were not timely or accurate, and the COR did not maintain required contract documentation in his COR file.

Appendix B

Potential Monetary Benefits

Recommendation	Type of Benefit	Amount of Benefit	Account
A.2	Unsupported Costs	\$20.9 million	W912DY-18-F-0003 W912DY-18-F-0032
B.3	Unsupported Costs	\$29.2 million	W912EP-18-C-0003

Source: The DoD OIG.

Management Comments on Potential Monetary Benefits and Our Response

U.S. Army Corps of Engineers Comments

The USACE Commanding General disagreed with the potential monetary benefits reported. The Commanding General listed the following reasons for why the potential monetary benefits should be removed from this report.

- DoD Manual 7600.07, “DoD Audit Manual,” August 3, 2015, states that benefits from audits are computed whenever the benefits are due directly to the audit recommendations, that is, when the benefits reported can be expected to result upon management’s completion of the recommended actions. The Commanding General stated that USACE is currently working toward closeout of the contracts and has not yet determined what costs are allowable because USACE has not finished its review. Additionally the Commanding General stated that USACE actions were already in progress and were not undertaken due directly to the audit recommendations. Therefore, the unsupported costs identified in this report would be inappropriate to include.
- DoD Manual 7600.07 prohibits the DoD OIG from claiming potential monetary benefits pertaining to audits of non-DoD programs and funds in the DoD OIG Semiannual Report to the Congress. Although the DoD OIG audited USACE’s oversight of the contracts, USACE performed the Department of Energy mission and the Department of Homeland Security/FEMA provided the funding.
- DoD Manual 7600.07 states that potential monetary benefits should be reviewed internally by an independent DoD OIG party to ensure consistent treatment in accumulating, categorizing, and reporting of potential monetary benefits reported. The Commanding General referenced DoD OIG Report No. DODIG-2019-043 and stated that potential monetary benefits were not claimed in that report because the contracts audited

were pending final reconciliations.²⁷ Therefore, the Commanding General believes that this report also should not report potential monetary benefits because it is premature and inappropriate in this case.

Our Response

Comments from the USACE Commanding General addressed the potential monetary benefits. The audit team acknowledges the references to DoD Manual 7600.07 with the following comments.

- The DoD OIG is the Office of Primary Responsibility for the issuance of DoD Audit Manual 7600.07. DoD Audit Manual 7600.07 states that the DoD OIG should not report potential benefits of non-DoD programs and funds in the DoD OIG Semiannual Report to the Congress. However, the DoD Audit Manual also states that benefits may be reported as part of the audit that produced them, including benefits to the U.S. Government overall; therefore, the benefits are included in this report. Additionally, because USACE contracting officials awarded, administered, and paid invoices on the three power grid contracts, we will include the potential benefits identified in this report in the DoD OIG Semiannual Report to the Congress. The potential benefits reported will include an explanation that FEMA officials provided the funds to USACE for the disaster relief response mission and that the funds will not benefit the DoD. We will work with the Department of Homeland Security OIG to ensure that any disaster relief funds USACE contracting officials determine as unallowable are recouped from the contractors and returned to FEMA or the Department of Treasury.
- One type of potential monetary benefit recognized by DoD Manual 7600.07 is questioned costs. The DoD Manual defines questioned costs as costs that are questioned because, at the time of the audit, the costs were not supported by adequate documentation. This report claimed \$20.9 million in potential monetary benefits in Finding A and \$29.2 million in potential monetary benefits in Finding B because the audit team considered those costs unsupported when the team reviewed the paid interim invoices and supporting documentation. Until USACE completes its review of paid invoices on contracts W912DY-18-F-0003, W912DY-18-F-0032, and W912EP-18-C-0003 and determines what costs are allowable and unallowable, the contract costs claimed as potential monetary benefits in this report are considered unsupported and potentially unallowable.

²⁷ Report No. DODIG-2019-043, "U.S. Army Corps of Engineers Oversight of Temporary Emergency Power Contracts Awarded for Hurricanes Harvey and Irma," January 3, 2019.

- The audit team determined whether the USACE properly monitored contractor labor hours and accurately reviewed and paid invoices for the Puerto Rico power grid repair and restoration contracts, and identified unsupported costs during the invoice review. For the DoD OIG Report No. DODIG-2019-043 referenced by the Commanding General, the audit team determined whether the USACE Pittsburgh District properly monitored contractor performance on temporary emergency power contracts, but did not assess whether USACE accurately reviewed and paid invoices; therefore, potential monetary benefits were not identified and reported.

Appendix E

Contract W912EP-18-C-0003 Invoice Five Labor Hours Billed Versus Supporting Documentation

Invoice	Labor Category	Spreadsheet Total Standard Hours	Spreadsheet Total Premium Hours	Invoice Total Standard Hours	Invoice Total Premium Hours	Standard Hours Discrepancies	Premium Hours Discrepancies
0005	Base Camp Manager	1,160	168	768	112	(392)	(56)
0005	Fueling Attendant	2,155.75	298	1,536	224	(619.75)	(74)
0005	HVAC Tech	1,702	224	1,536	223	(166)	(1)
0005	Laundry Handler	2,452	409	1,536	224	(916)	(185)
0005	Power Gen Tech	1,653.75	196	1,577	196	(76.75)	–
0005	Restroom Attendant	1972	334	1,536	224	(436)	(110)
0005	Shower Attendant	1,887.50	254	1,543.50	219	(344)	(35)
0005	Sleeper Trailer Attendant	1,823	271	1,542	220	(281)	(51)
0005	Waste Disposal Attendant	1,671.50	219	1,543.50	219	(128)	–
0005	Catering	9,021.50	1,377	9,021.50	1,344	–	(33)
Total Invoice 5						(3,359.50)	(545)

Appendix F

Contract W912EP-18-C-0003 Invoice Six Labor Hours Billed Versus Supporting Documentation

Invoice	Labor Category	Spreadsheet Total Standard Hours	Spreadsheet Total Premium Hours	Invoice Total Standard Hours	Invoice Total Premium Hours	Standard Hours Discrepancies	Premium Hours Discrepancies
0006	Safety Officer	1,243	168	1,243	168	–	–
0006	Driver	4,336.40	582.50	4,356	578.50	19.60	(4)
0006	Assessor	5,631.40	753.50	5,663.50	751	32.10	(2.50)
0006	Team Leader	457	60	437.50	59	(19.50)	1
Total Invoice 6						32.20	(7.50)

Appendix G

Contract W912EP-18-C-0003 Invoice Seven Standard and Premium Labor Hours Billed Versus Supporting Documentation

Invoice	Labor Category	Spreadsheet Total Standard Hours	Spreadsheet Total Premium Hours	Invoice Total Standard Hours	Invoice Total Premium Hours	Standard Hours Discrepancies	Premium Hours Discrepancies
0007	General Foreman	5,392	936	5,392	1,000	–	64
0007	Overhead Operator	17,442	2,940	17,442	3,080	–	140
0007	Mechanic	1,200	216	1,212	240	12	24
0007	Equipment General Foreman	443	64	443	64	–	–
0007	Equipment Operator	1,080	140	1,080	140	–	–
0007	Engineer	910	129	642	88.50	(268)	(40.50)
0007	Jr Engineer 1	1,192	161	1,110	156.50	(82)	(4.50)
0007	Jr Engineer 2	626.50	83.50	974.50	128.50	348	45
0007	Safety Officer	2,420	366	2,422	342	2	(24)
0007	Team Leader	470.50	60	438	48	(32.50)	(12)
0007	Driver	4,544	595	4,379	475	(165)	(120)
0007	Assessor	4,983.50	656	4,814	523	(169.50)	(133)
Total Invoice 7 – Standard and Premium Hours						(355)	(61)

Appendix H

Contract W912EP-18-C-0003 Invoice Seven Standby Labor Hours Billed Versus Supporting Documentation

Invoice	Labor Category	Spreadsheet Total Standby Hours	Invoice Total Standby Hours	Standby Hours Discrepancies
0007	General Foreman	450	436	(14)
0007	Overhead Line Foreman	1,201	1,187	(14)
0007	Overhead Lineman A (First Class) (I&II)	2,301	2,273	(28)
0007	Overhead Lineman B (Second Class) (III)	1,095	1,081	(14)
0007	Overhead Operator	1,278	1,264	(14)
0007	Overhead Groundman	1,322	1,308	(14)
0007	Mechanic	290	254	(36)
007	Equipment General Foreman	1	–	(1)
Total Invoice 7 – Standby Hours				(135)

Management Comments

U.S. Army Corps of Engineers



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS
441 G STREET, NW
WASHINGTON, DC 20314-1000

CECG

5 Aug 2019

MEMORANDUM FOR [REDACTED], Assistant Inspector General, Department of Defense Office of Inspector General (DoDIG), 4800 Mark Center Drive, Alexandria, VA 22350-1500

SUBJECT: Response for the DoDIG Draft Report: "Audit of U.S. Army Corps of Engineers (USACE) Oversight of Contracts for Repair and Restoration of the Electric Power Grid in Puerto Rico," (Project Code D2018-D000AU-0128), dated 3 Jul 2019.

1. We understand that DoDIG's audit objective was to review invoice payments related to Puerto Rico power grid restoration. We appreciate the addition of context regarding the risks inherent to saving lives and restoring power within a few months for an entire territory devastated by Hurricane Maria; however, the magnitude of the destruction, the complexity of the mission, the urgency for Federal action, and the degree of human suffering cannot be overstated. Responding to Hurricane Maria in Puerto Rico was not business as usual. In this case, life, health, and safety considerations dictated expediency at the expense of established processes.
2. We accept the intent of your five recommendations with comments below. USACE delivers solutions for the Nation's toughest challenges. We are committed to world-class delivery in the aftermath of historic challenges to life and safety, while providing the highest-level of accountability possible.
3. **Context.** USACE serves as the Federal Emergency Management Agency's (FEMA) Public Works Engineer under the National Response Framework. Missions performed in a response event normally include temporary emergency power, temporary roofing, temporary housing, debris management and reduction, and critical infrastructure assessment and repair. The repair and restoration of an electrical power grid is NOT a CORE USACE mission. The Puerto Rico Electric Power Authority (PREPA) did not have the necessary capability, capacity, or structure to respond, and the U.S. Department of Energy did not have the expeditionary tools and resources in place to perform the mission. FEMA turned to USACE, and its' experience in conducting expeditionary operations, to both restore temporary power and to lead all efforts in preparation for and the actual execution of all activities to restore the power grid. USACE received FEMA's Mission Assignment on September 30, 2017.
4. Time was of the essence and, within two weeks, USACE awarded the first of several grid restoration contracts. While not ideal, USACE leveraged the provisions from other contingency contracts and existing contract vehicles to meet the time sensitive requirement and to address the complexity of executing the mission on a geographically isolated island with some of the most geographically challenging terrain imaginable. There was significant financial risk to the contractors who undertook the work, to USACE's reputation as an agency that undertakes the

U.S. Army Corps of Engineers (cont'd)

Nation's greatest challenges, and to the Federal government in answering the call to restore power and normalcy to over 3 million U.S. citizens. Time and material contracts, while not a USACE best business practice, afforded acceptable shared risk and facilitated the urgency to respond rapidly.

5. Contributing factors to identified shortfalls in monitoring contractor labor hours and invoices include the simultaneous execution of USACE's traditional non-emergency program, in excess of \$26B world-wide. Further, USACE simultaneously responded to unprecedented multiple crises in 2017-2018 to include: 20 hurricanes/typhoons, 17 named storms, 6 major hurricanes, including Hurricanes Harvey in Texas, Irma in Virgin Islands and Florida, Maria in Puerto Rico, 5 wildfires and 16 other natural disasters. USACE's volunteer quality assurance personnel were spread across the Gulf Coast, the Florida peninsula, and the Caribbean. Sustaining the required number of quality assurance personnel was a daunting challenge.

6. The pictures below illustrate some of the geographic challenges our quality assurance team and the thousands of electrical line-workers faced during grid restoration. USACE provided oversight for contractors in a dynamic environment, but the utility PREPA was responsible for directing line-workers to work sites on a daily basis. In addition to this dynamic and challenging environment, all vehicles and equipment, material, and personnel deployed via commercial air, strategic airlift, and both maritime vessels and barges from U.S. ports.



U.S. Army Corps of Engineers (cont'd)

7. USACE obligated over \$1.5B for power restoration, deployed over 3,000 DA Civilians and 250 military to PR and USVI, and at peak, had over 3,000 contractors working on grid restoration. The grid consisted of over 2,400 miles of transmission lines, 30,000 miles of distribution lines, over 300 sub-stations, and 16 power generation plants. An estimated 80% of the grid was damaged. Due to material shortages on the island, USACE procured, transported, and stored over \$229M in material. The grid power restoration mission began winding down in May 2018, but the temporary power mission went on for months. USACE installed over 2,300 generators (7 times as many as the record from Hurricane Katrina), nine micro-grids, and two mega-generators at power plants to ensure adequate generation. There were an estimated 1.473M pre-storm customers. USACE restored power to an estimated 1.45M customers.

8. **DODIG Recommendations A.1 and B.1.** Concur; USACE generally does not use time-and-material (T&M) contracts. We have existing contracts for USACE's traditional emergency mission responsibilities. **Actions Completed:** Nevertheless, my Director of Contracting tasked all USACE Contracting Officers to take the Defense Acquisition University's T&M training course and review this DoDIG report for lessons learned. My Director has released checklists to be used by Contracting Officer Representatives, including a Quality Assurance Surveillance Plan Checklist and a Payment Approval/Recommendation Checklist. My Director ordered copies of the DoD Contingency Contracting Officer Representative (CCOR) handbooks to be used by CCOR's while supporting contingency operations. **In-Progress – S: 30 Oct 2019:** My Director will include T&M contracts as a special interest item in the Procurement Management Review process.

9. **DODIG Recommendations A.2 and B.3.** Concur; USACE reviews contracts as part of our standard contract close out process. **In Progress – S: Jan 2020:** In accordance with FAR 52.216-7 "Allowable Cost and Payment" and FAR 52.232-7 "Payments under Time and Materials and Labor-Hour Contracts," the Contracting Officers are performing an audit of the vouchers and supporting documentation prior to final payment on the contracts. DCAA is assisting USACE.

10. **DODIG Recommendations B.2.** Concur; **In-Progress – S: 15 Dec 2019:** My Director of Contracting will perform a review of contract W912EP-18-C-0003 and make any necessary corrections and recommendations to ensure future responses to contingency operations are executed consistently. She will also prepare an After Action Report and provide lessons learned to the Contracting Community.

11. See Enclosure 1 for USACE comments on Potential Monetary Benefits.

12. My point of contact for the enclosure at HQUSACE is [REDACTED], SES, Director of Contracting, [REDACTED].

In a natural disaster - my focus is to save lives and property and get back to normal. We always strive to meet all req's - but you failed to understand the extreme constraints of the disaster. We will strive to do better given the nature of the disaster and the relentless manning reductions.

TODD T. SEMONITE
Lieutenant General, USA
Commanding

U.S. Army Corps of Engineers (cont'd)

ENCLOSURE 1: USACE Evaluation of Potential Monetary Benefits (PMBs)

As required by DoDM 7600.07 and the DoDIG report, USACE comments on the potential monetary benefits (PMBs) shown in the DODIG draft report, "Audit of U.S. Army Corps of Engineers Oversight of Contracts for Repair and Restoration of the Electric Power Grid in Puerto Rico," dated 3 Jul 2019.

Enclosure 1 should be included in the DoDIG Final Report as part of this USACE response if the DoDIG report claims PMBs. Otherwise, Enclosure 1 should be removed from the USACE response memo. USACE comments follow:

1. DODIG tentatively identified PMBs shown in DoDIG's Appendix B as:
 - a. \$20.9M in Unsupported Costs attached to Recommendation A.2, and
 - b. \$29.2M in Unsupported Costs attached to Recommendation B.3.
2. USACE disagrees with claiming \$50.1M in Unsupported Costs and recommends removing Appendix B in the DoDIG Final Report.
3. **Computation of Monetary Benefits.** Enclosure 13 of DoDM 7600.07 states: "Benefits from audits are computed whenever the benefits are due directly to the audit recommendations; that is, when the benefits reported can be expected to result upon management's completion of the recommended actions."
 - a. USACE currently is working toward close out of each contract and has yet to finish its review of all allowable costs. The DoDIG draft report asserts that invoices were paid without sufficient supporting documentation and that the costs might be unallowable. This determination simply cannot be made until USACE completes its review of all invoices.
 - b. USACE actions were already in progress and were not undertaken "due directly to the audit recommendations." It would be inappropriate to include PMB in the report.
4. **Source of funds.** DoDM 7600.07 prohibits DoDIG from claiming PMB from audits of non-DoD programs and funds in the DoDIG Semiannual Report to Congress. While DoDIG audited USACE oversight, the mission belonged to Department of Energy and funding was from DHS/FEMA.¹
5. **Consistency with prior DoDIG work.** Before issuing the final report, DoDM 7600.07 requires an independent party in DoDIG to review PMB to ensure consistent treatment in accumulating, categorizing, and reporting PMB. The DoDIG did not claim PMB in DODIG-2019-043 because those contracts also were pending final reconciliations. We believe claiming PMB as described in the draft report is premature and inappropriate in this case.

¹ See <https://dod.defense.gov/News/Contracts/Contract-View/Article/1386074/> to confirm W912EP-18-C-0003 funding from DHS.

Acronyms and Abbreviations

ACO	Administrative Contracting Officer
COR	Contracting Officer's Representative
DCAA	Defense Contract Audit Agency
DFARS	Defense Federal Acquisition Regulation Supplement
FAR	Federal Acquisition Regulation
FEMA	Federal Emergency Management Agency
GAO	Government Accountability Office
USACE	U.S. Army Corps of Engineers

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