



OFFICE OF INSPECTOR GENERAL

U.S. Department of Energy

AUDIT REPORT

DOE-OIG-19-48

September 2019

**SUBCONTRACTS FOR CONSULTING
SERVICES AT FERMI NATIONAL
ACCELERATOR LABORATORY**



Department of Energy
Washington, DC 20585

September 9, 2019

MEMORANDUM FOR THE MANAGER, FERMI SITE OFFICE

A handwritten signature in black ink, appearing to read "Debra K. Solmonson".

FROM: Debra K. Solmonson
Deputy Assistant Inspector General
for Audits and Inspections
Office of Inspector General

SUBJECT: INFORMATION: Audit Report on "Subcontracts for Consulting Services at Fermi National Accelerator Laboratory"

BACKGROUND

Since January 2007, Fermi Research Alliance, LLC (FRA) has been the management and operating (M&O) contractor at the Fermi National Accelerator Laboratory (Fermilab) for the Department of Energy's Office of Science. In support of Fermilab's mission to drive discovery by building and operating world-leading accelerator and detector facilities, performing pioneering research, and developing new technologies for science, FRA often relied on consultants to obtain specialized services. Federal Acquisition Regulation 31.205-33, *Professional and Consultant Service Costs*, defines professional and consultant services as those from a particular profession or possessing a special skill for the purpose of acquiring information, advice, opinions, recommendations, training, direct assistance, studies, analyses, or evaluations. FRA used subcontracts to commit resources and formalize its relationships with consultants.

The Department relied on FRA to conform to applicable acquisition regulations and the terms and conditions of its M&O contract when managing and administering its subcontracts for consulting services. Department of Energy Acquisition Regulation 970.44, *Management and Operating Contractor Purchasing*, requires that FRA's purchasing system provide appropriate measures to ensure the acquisition of quality services at fair and reasonable prices. It further requires that FRA's subcontracts for consulting services files contain written documents that present an accurate and adequate record of all purchasing transactions and set forth the information and data used in determining that the purchases are in the best interest of the Government. In accordance with its M&O contract, FRA's purchasing system and methods used must be fully documented, consistently applied, and acceptable to the Department. The Department-approved purchasing system and methods are documented in FRA's *Procurement Policy and Procedures Manual*, which includes the guiding principles for subcontracts for consulting services. We initiated this audit to determine if FRA had managed a select sample of its subcontracts for consulting services in compliance with applicable requirements.

RESULTS OF AUDIT

Based on our analysis of 19 subcontracts awarded for consulting services valued at \$2.2 million, we determined that FRA had not fully complied with applicable requirements in administering these subcontracts, and we questioned the allowability of \$46,033.27 in costs associated with certain noncompliances. Specifically, we found that FRA, which used subcontracts to obtain consulting services, had accepted invoices from its consultants that often lacked sufficient detail to support the services rendered, had not ensured that sole source justifications were clearly documented and approved, and had inappropriately allowed consultant services to be performed prior to a valid subcontract being in place, otherwise referred to as “after-the-fact” procurement actions. Additionally, we noted that FRA had not always included the required conflict of interest provisions or certificates of insurance in the subcontracts. Finally, FRA had not ensured that it had appropriately documented the scopes of work for consulting services.

Invoices Lacking Sufficient Detail

FRA accepted invoices from its consultants that often lacked sufficient detail to support the services rendered. Federal Acquisition Regulation 31.205-33 states that fees for consulting services rendered are allowable only when supported by invoices with sufficient detail as to time expended and nature of the actual services provided. Additionally, M&O contract Clause I.128 - Department of Energy Acquisition Regulation 970.5244-1, *Contractor Purchasing System*, requires FRA to maintain file documentation that adequately establishes the propriety of the transaction and the price paid.

However, we found that 75 invoices, totaling \$1,120,818.09, of the 140 consulting invoices we reviewed did not contain sufficient support for the services provided and time expended. For example, we noted 47 invoices from one consultant that had not included descriptions of the services and/or deliverables provided. This consultant merely cited the project on the invoices submitted, instead of listing the actual services provided that had been described in the scope of work. In particular, the agreement required the consultant to conduct an earned value analysis, submit development plans, update performance reports, and collaborate with the project’s technical staff. Yet, the invoices did not reflect which, if any, of those tasks had been performed. In another example, FRA accepted eight invoices from one consultant that had not included the actual hours worked by the consultant, even though the consultant’s scope required hours worked to be submitted. Upon our request, the program officials we spoke with were able to provide evidence that the consultants had provided the required contracted services. However, without sufficient detail documented in the invoices, FRA cannot ensure that the invoices submitted by its consultants only included allowable costs prior to payment.

Sole Source Justification

FRA had not ensured that sole source justifications were clearly documented and approved for its noncompetitively awarded subcontracts for consulting services. M&O contract Clause I.57, *Competition in Subcontracting*, requires FRA to select subcontractors on a competitive basis to the maximum extent practical, consistent with the objectives and requirements of the contract. FRA acknowledged that there may be circumstances where one source has exclusive capability

to perform the work within the time required and at reasonable prices. In such circumstances, FRA's *Procurement Policy and Procedures Manual* requires that consultant subcontracts contain the rationale for source selection and the need to go outside Fermilab for the services. Further, sole source justifications shall set forth enough facts to clearly establish that competition is not practical or possible. In addition, FRA's Procurement Organization developed instructions for the *Justification for Noncompetitive Procurement*, which lists specific items and questions to be answered in order to properly support and document a sole source.

Despite the requirements to select on a competitive basis to the maximum extent practical, we found that 13 of the 19 consultant subcontracts had been noncompetitively awarded, and 11 of those agreements, totaling \$463,751.40, had not contained adequate sole source justifications. Specifically, four consultant subcontracts we reviewed had not included any sole source justifications, and seven lacked the necessary level of detail to support their noncompetitive awards. For example, justifications lacked sufficient explanations for why the consultant's capabilities were exclusive, why competition had been precluded, or why it was necessary to go outside Fermilab for the services. Without properly documenting and approving sole source justifications, FRA cannot provide assurance to the Department that its noncompetitive subcontracts for consulting services were awarded in compliance with the terms and conditions of the M&O contract.

“After-the-Fact” Consultant Subcontracts

We identified instances where FRA had inappropriately allowed consultant services to be performed prior to a valid subcontract or subcontract modification being in place, and instead, processed the subcontract “after-the-fact,” or after the services were rendered. Federal Acquisition Regulation 31.2, *Contracts with Commercial Organizations*; the M&O contract; and FRA's *Procurement Policy and Procedures Manual* set forth the requirements for committing funds. Federal Acquisition Regulation 31.2 stipulates that costs may be deemed unreasonable, and thus unallowable, if costs violate proper business practices, reflect conflicts of interest, are not consistent with the purpose and scope of services contracted for, or deviate from the contractor's established practices. FRA's established practices expressly state that only procurement personnel can make commitments for the expenditure of Fermilab funds. Regardless, we noted procurement actions in which consultants performed work and a subcontract was then created “after-the-fact” to cover the costs already incurred.

To illustrate, we found that 7 of the 19 consultant subcontracts we reviewed had incurred costs valued at \$46,033.27 without either an appropriate subcontract being in place or a proper subcontract modification. For example, one consultant performed 141.5 hours of services totaling \$20,517.50 prior to the subcontract being finalized. In another example, a consultant submitted three invoices and associated travel expenses totaling \$10,452.77 after the performance period ended and prior to revising the terms of the agreement. Yet, despite directives prohibiting these actions, procurement administrators processed these requisitions for payment. Although the term of the subcontract had not been adjusted, we found that the invoices represented costs for services that had been provided and would have otherwise been allowable if the administrative process for revising the period of performance for the subcontract was followed.

The issue of “after the fact” consulting subcontracts is not new and had been identified and reiterated by FRA procurement policy for several years. In fact, in a May 2015 memo, the Laboratory Director restated that only procurement personnel could authorize subcontracts and stated that Fermilab is not obligated to pay for services initiated before a legally binding subcontract becomes effective. Additionally, FRA’s *Procurement Policy and Procedures Manual* contains guidance to its staff that unauthorized procurements are not in accordance with its contract with the Department and that such actions jeopardize the FRA’s approved procurement system. The guidance warns that unauthorized procurements could place staff at risk of disciplinary action and leave the staff personally liable for costs that would not be paid by FRA. Nonetheless, we noted that the practice continued in the sample we reviewed. As a result, we questioned the reasonableness, and thus allowability, of \$46,033.27 in costs for services and associated travel expenses that were incurred prior to FRA putting a subcontract in place or when the costs represented work outside the subcontract period of performance.

Conflict of Interest Provisions

FRA had not always included the required conflict of interest provisions in its procurement actions, such as required disclosures and mitigation recommendation forms. M&O contract Clause I.74 - Department of Energy Acquisition Regulation 952.209-72, *Organizational Conflicts of Interest*, requires FRA to: (1) obtain conflict of interest disclosures from the consultant prior to award; (2) determine in writing whether an actual conflict is present; and (3) take actions to avoid, neutralize, or mitigate actual or significant potential organizational conflict to its satisfaction. FRA’s *Procurement Policy and Procedures Manual* recognizes that professional and consulting services have a higher probability of potential conflict of interest, and thus, must be scrutinized even more carefully. The manual requires the procurement administrators to obtain a completed FL-11 *Organizational Conflict of Interest Certification* (disclosure form) from the consultant and prepare a finding on the FL-10 *Fermilab Organizational Conflict of Interest Recommendations* form prior to submitting it to legal counsel for concurrence before awarding the purchase order.

Despite these requirements, we found that 13 of the 19 consultant subcontracts reviewed, valued at \$1,196,365.88, did not have the required disclosure forms. When we inquired into this matter, a procurement manager stated that it was a common practice to exclude the conflict of interest provision in purchase orders where the consultant had no previous agreements with Fermilab. While previous contractual engagements would need to be disclosed, conflict of interest also covers other factors, such as financial and personal matters that could give the perception of an unfair competitive advantage or impact the consultant’s ability to provide impartial and objective assistance.

Certificate of Insurance

FRA had not ensured that the certificate of insurance provision for performing work at Fermilab was consistently applied to applicable subcontracts for consulting services. Federal Acquisition Regulation 52.228-5, *Insurance – Work on a Government Installation*, states that for subcontracts requiring work on a Government installation, the subcontractor shall provide and maintain the insurance required in the contract. Per FRA’s FL-4, *Fermilab Services Subcontract*

Terms and Conditions, for all work performed at Fermilab, the subcontractor shall take out and maintain at its own cost and expense insurance before undertaking any work and until the work has been completed and accepted by FRA.

In accordance with the terms above, we found that 9 of the 13 consulting subcontracts requiring certificates of insurance, valued at \$1,051,164.72, did not have the required proof of insurance coverage. For example, we identified six consultants that had only provided proof of coverage for a portion of the subcontract term but were still allowed to continue performing their services for Fermilab. Additionally, we identified three consultants that had not provided proof of coverage at all. When we inquired into this matter, the procurement administrators stated that since these consultants had only worked in office environments onsite, those consultants had not been requested to provide insurance. However, this contradicts the terms and conditions of those purchase orders. Further, we noted that this practice was inconsistently applied. Specifically, we noted that several consultants had provided insurance per their purchase orders even when their work performed was in an office environment onsite. Several procurement administrators we spoke with stated that they felt that the required coverage created a burdensome cost to the consultants and was set too high, especially when the work was only performed in an office environment.

Scope of Work

FRA had not always included sufficient details of the scope of work to be performed in its procurement actions. The M&O contract Clause I.128 - Department of Energy Acquisition Regulation 970.5244-1 requires FRA to maintain file documentation that adequately establishes the propriety of the transaction. However, we found that 3 of the 19 consulting subcontracts, valued at \$63,980.52, did not provide specific objectives and required results of the work to be performed. For example, one consultant's purchase order was revised seven times but did not incorporate a new scope of work when the services required to be performed changed. In another example, a purchase order merely described the consultant's services as support for file reviews and time and material contracting within the FRA's Procurement Organization, yet even this agreement had not included details of work to be performed. When we inquired into this matter, a procurement administrator stated that since the consultant was a former employee, the scope of work was communicated verbally. Closeout documentation conveyed that services had been received for this subcontract, but without detailed scope of work in the purchase orders, neither FRA nor the Department can evaluate whether the consultants met the terms of the subcontracts.

History of Procurement Weaknesses

These conditions occurred, in part, because of weaknesses within the procurement process and organization. Specifically, FRA had been slow to correct recurring issues in its procurement process that had been identified in past reviews and within the Procurement Organization, such as ensuring that its Procurement Organization was properly trained and staffed.

Procurement Process

FRA has been slow to correct past and recurring issues found in its procurement process. Specifically, the subcontract problems identified in our review had been reported by FRA and the Department. For example, a 2015 *Procurement of Goods and Services Memorandum* from the Laboratory Director referred to procurement areas that required awareness and attention, such as “after-the-fact” requisitions, noncompetitive contracting, and invoice approvals. The Director further stressed that all Fermilab personnel must be diligent in adhering to contractual requirements. Additionally, in the 2016 Procurement Evaluation & Re-Engineering Team Review and the *Fiscal Year 2017 Performance Evaluation Report of Fermi Research Alliance, LLC*, the Department reported that FRA’s Procurement Organization had been very lean and noted procurement activities that required improvements, such as sole source justifications and training of staff.

To its credit, FRA management developed a procurement transformation plan in March 2017 to improve its procurement process. However, while FRA had made progress, it was still slow to implement many improvements. An April 2018 external review committee also had concerns with the rate of progress and found that the transformation plan lacked a sense of urgency and intentionality. The committee recommended an approach to tackle the acquisition challenges across Fermilab and not solely within the FRA’s Procurement Organization. Similarly, the Department’s Fermi Site Office had expressed its concern that the FRA’s Procurement Organization would not be effective at implementing changes under its current approach without significant support and action from laboratory leadership. With timely implementation of corrective actions and support from laboratory leadership, FRA could improve its procurement process and ensure that its program officials and procurement administrators adhere to applicable requirements for its consultant subcontracts.

Training

We noted that FRA employees responsible for consultant subcontracts had not always been trained sufficiently on the procurement process. For instance, one program official we interviewed was unaware of some requirements, such as the obligation to consult with a procurement administrator when making changes to the terms in the subcontracts. As noted above, we identified several instances in which program officials committed Fermilab to additional consulting services without the knowledge of the procurement administrators. Further, we discovered that there were differing opinions amongst the procurement administrators on the definition of consultant subcontracts and which procedures applied to these types of acquisitions.

Another recent review of FRA’s procurement processes had also identified the need for additional training. In particular, in April 2018, an external review committee recommended that the FRA’s Procurement Organization implement immediate training in key acquisition disciplines, specifically through the “Contracts 101” training initiative, and continue to create and implement a robust training program for its procurement staff. While this is a recent recommendation, it is a repeated one, and FRA has been slow to implement an effective training

program. For example, while FRA's Procurement Organization had planned to develop a curriculum for program officials in fiscal year 2017, we noted during our field work that training had yet to be rolled out to the program officials.

Procurement Staffing

Further contributing to issues identified in this report may be insufficient staffing levels within the FRA's Procurement Organization, according to procurement officials, which had resulted in procurement supervisors executing and administering subcontracts that would normally have been assigned to a procurement administrator. Our review of the FRA's Procurement Organization Transformation Plan and other reviews revealed that procurement staff should be increased to appropriate levels. Similar to training, this had also been an ongoing concern and was further exacerbated by the fact that many of the current staff were eligible for retirement. FRA posted in its September 2017 procurement transformation status update that its Procurement Organization still had not achieved the optimal level of procurement staff to execute the current acquisition workload, and, in the March 2018 update, FRA stated that hiring procurement staff was still an ongoing effort. In absence of sufficient staff, the procurement supervisors assumed responsibilities for administering subcontracts, which directly limited their time to provide sufficient oversight on procurement actions and training of staff. We recognize the efforts being made to address the staffing deficiencies but recommend that FRA continue with these efforts to ensure that its Procurement Organization is staffed at appropriate levels.

Questionable Costs and Risks

In addition to the \$46,033.27 in questionable costs we identified related to "after-the-fact" subcontracts for consulting services, the weaknesses identified in our report limited FRA's ability to provide reasonable assurance that other consultant service costs had been reasonable, allowable, and allocable. Further, without improvements to strengthen the procurement process, training, and oversight of subcontracts for consulting services, FRA will continue to put its Department-approved purchasing system at risk. This is especially important as Fermilab moves forward with the Long Baseline Neutrino Facility/Deep Underground Neutrino Experiment (LBNF/DUNE) Project, which has an estimated total cost of \$1.5 billion. In addition to the routine management and operational activities requiring subcontracted services, this project has already resulted in a greater number of subcontracts being awarded. Specifically, 9 out of the 19 subcontracts for consulting services in our sample were specifically for advisory and assistance services on the LBNF/DUNE project.

RECOMMENDATIONS

To ensure that costs incurred are reasonable and allowable, we recommend that the Manager, Fermi Site Office, direct the Contracting Officer to:

1. Determine the allowability of \$46,033.27 incurred by Fermi Research Alliance, LLC for subcontracts for consulting services costs associated with "after-the-fact" subcontracts for consulting services.

Further, to ensure that subcontracts for consulting services are in compliance with applicable requirements, we recommend that the Manager, Fermi Site Office, direct the Contracting Officer to ensure that Fermi Research Alliance, LLC:

2. Prioritizes and implements corrective actions pertaining to recurring procurement issues, including those related to invoices lacking sufficient support for payment; subcontracts missing sole source documentation; “after-the-fact” requisitions; and subcontracts lacking conflict of interest statements, certificates of insurance, and adequate scopes of work.
3. Sufficiently and routinely trains procurement staff on their roles and responsibilities.
4. Continues with ongoing efforts to staff its Procurement Organization in a manner consistent with its hiring plans, taking into consideration the future needs of Fermilab.

MANAGEMENT RESPONSE

Management concurred with the report’s recommendations and indicated that corrective actions are planned to address the issues identified in the report. Management’s comments are included in Attachment 2.

AUDITOR COMMENTS

Management comments and planned corrective actions are responsive to our recommendations.

Attachments

cc: Deputy Secretary
Chief of Staff
Director, Office of Science

OBJECTIVE, SCOPE, AND METHODOLOGY

OBJECTIVE

We conducted this audit to determine if Fermi Research Alliance, LLC (FRA) had managed a select sample of its subcontracts for consulting services in compliance with applicable requirements.

SCOPE

We conducted this audit from August 2017 through February 2019 at the Department of Energy's Fermi National Accelerator Laboratory located in Batavia, Illinois. Specifically, we narrowed our review to focus on a select sample of subcontracts for consulting services which were awarded and/or administered by FRA from October 1, 2015, to June 30, 2017. Additionally, we reviewed all available procurement documentation and invoices on file as of February 28, 2018, related to our sampled subcontracts for consulting services. The audit was conducted under the Office of Inspector General project code A17OR038.

METHODOLOGY

To accomplish our objective, we:

- Reviewed applicable Federal laws and regulations, Department policies, and management and operating contract provisions related to subcontracts awarded for consulting services.
- Reviewed FRA policies and procedures related to consultant subcontracts.
- Judgmentally selected a sample of 19 subcontracts awarded for consulting services. Key attributes and risk areas considered during the selection process included contract type, status (open-versus-closed), scope of work, dollar value, and period of performance.
- Obtained and reviewed the procurement documentation and invoices on file for the sampled consultant subcontracts.
- Developed a checklist of items and criteria to test against each sampled consultant subcontract.
- Interviewed Department officials and FRA personnel responsible for overseeing, managing, and administering subcontracts for consulting services.

We conducted this performance audit 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 objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. The audit included tests of controls and compliance with laws and regulations to the extent necessary to satisfy the audit

objective. Because our review was limited, it would not necessarily have disclosed all internal control deficiencies that may have existed at the time of our audit. Finally, we relied on computer-processed data provided by FRA for consultant subcontracts to a limited extent. We examined source documentation for each of the sampled subcontracts and determined that the data was sufficiently reliable to provide a basis for our conclusions.

An exit conference with Department officials was held on August 23, 2019.

MANAGEMENT COMMENTS



Department of Energy

Fermi Site Office
 Post Office Box 2000
 Batavia, Illinois 60510

August 14, 2019

MEMORANDUM FOR: MICHELLE ANDERSON
 DEPUTY INSPECTOR GENERAL FOR AUDITS
 AND INSPECTIONS

FROM: MICHAEL J. WEIS *MJW*
 MANAGER
 FERMI SITE OFFICE

SUBJECT: Management Comments on Draft Audit Report, "Subcontracts for
 Consulting Services at Fermi National Accelerator Laboratory"

The Department of Energy (DOE) Fermi Site Office (FSO) accepts all recommendations of the report. In general, the audit confirmed known deficiencies in the procurement and accounting system at Fermi National Accelerator Laboratory (Fermilab) by the contractor Fermi Research Alliance, LLC (FRA). In order to confirm all recommendations are addressed, FSO will review the related corrective actions in FRA Corrective Action Plans, and follow the actions to closure.

Management Reaction

Recommendation 1: FSO concurs with the recommendation.

"Determine the allowability of \$46,033.27 incurred by FRA for consulting agreement costs associated with unauthorized procurements."

The Site Office Manager will direct the Contracting Officer to determine the allowability of the \$46,033.27 incurred by FRA subcontracts related to consulting services costs associated with the referenced subcontracts for consulting services. FSO will also make certain broader, programmatic corrective actions underway at FRA to address these types of issues are completed in a timely fashion.

Estimated Completion Date: 12/2019

Recommendation 2: FSO accepts the recommendation.

"Prioritizes and implements corrective actions pertaining to recurring procurement issues, including those related to "after-the-fact" requisitions, invoices lacking sufficient support for payment, invoices lacking scope of work details, sole source documentation, conflict of interest statements, and certificates of insurance."

The Site Office Manager will direct the Contracting Officer to make certain that FRA prioritizes and implements corrective actions pertaining to recurring procurement issues, including those related to invoices lacking sufficient support for payment; subcontracts missing sole source justification;

Michelle Anderson

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August 14, 2019

requisitions processed without prior approval; and subcontracts lacking complete documentation (including conflict of interest statements, certificates of insurance, and adequate scopes of work). FSO will also provide oversight to make certain that the policy changes are implemented in accordance with FRA improvement plans.

Estimated Completion Date: 9/2020

Recommendation 3: FSO accepts the recommendation.

"Sufficiently and routinely trains procurement staff on their roles and responsibilities."

The Site Office Manager will direct the Contracting Officer to make certain that FRA has plans in place to sufficiently and routinely train procurement staff on roles and responsibilities. FSO will also provide oversight to make certain that the training changes are implemented in accordance with FRA improvement plans.

Estimated Completion Date: 3/2020

Recommendation 4: FSO accepts the recommendation.

"Continues with ongoing efforts to staff its Procurement Organization in a manner consistent with its hiring plans, taking into consideration the future needs of Fermilab."

The Site Office Manager will direct the Contracting Officer to make certain that FRA continues with ongoing efforts to staff the procurement organization in a manner consistent with hiring plans, taking into consideration the future needs of Fermilab. FSO will also provide oversight to make certain that the hiring changes are implemented in accordance with FRA improvement plans.

Estimated Completion Date: 6/2020

Comments

FSO will make certain all FRA actions are completed.

If you have any questions, please contact Nicholas D. Brown, of my staff, at (630) 840-4197.

FEEDBACK

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