



U.S. Department of Energy
Office of Inspector General
Office of Audit Services

Management Controls over Small Business Opportunities at Lawrence Livermore National Laboratory

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August 2006



Department of Energy
Washington, DC 20585

August 24, 2006

MEMORANDUM FOR THE MANAGER, LIVERMORE SITE OFFICE

FROM:

George W. Collard
George W. Collard
Assistant Inspector General
for Performance Audits
Office of Inspector General

SUBJECT:

INFORMATION: Audit Report on "Management Controls over Small Business Opportunities at Lawrence Livermore National Laboratory"

BACKGROUND

The President stated in his Small Business Agenda that the Federal government should break out functions to contract with small businesses wherever practicable. In the Small Business Act, Congress also declared its support of small businesses. In support of the President's small business agenda and congressional direction, the National Nuclear Security Administration (NNSA) established a policy that is consistent with the President's agenda requiring its field offices to work with management and operating contractors to provide small businesses the maximum practicable opportunity to provide the goods and services needed to support all of NNSA's programs and activities.

The University of California (University) manages and operates the Lawrence Livermore National Laboratory (Laboratory) for NNSA. In its contract, the University has agreed to award small business subcontracts to the fullest extent consistent with efficient contract performance. The contract also includes a Federal Acquisition Regulation requirement that small business concerns have the maximum practicable opportunity to participate in performing contracts let by any Federal agency. Based on the significance of small business to the President and Congress, we initiated this audit to determine whether the Laboratory had identified laboratory functions that could be subcontracted to small business concerns.

RESULTS OF AUDIT

Although the Laboratory contracted many existing large subcontracts to small businesses, it had not identified internally performed functions that could be subcontracted to small businesses even though it was practicable and cost effective to do so. Specifically, the Laboratory was performing functions, such as custodian services, landscaping and occupational medical services, despite the availability of local small businesses to provide these services. For example, 98 percent of the Laboratory's landscaping work was performed by its employees, although there were 31 landscaping small businesses within the Laboratory's labor market. Additionally, other Federal facilities with similar labor markets and/or requirements were using small businesses to perform these functions at equal to or reduced cost.



The Laboratory was not identifying small business opportunities in its internally performed functions because it had not tasked an organization at the institutional (laboratory-wide) level to identify such opportunities. Further, the Livermore Site Office did not ensure that the Laboratory had met its contract requirements to identify small business opportunities to the fullest extent consistent with efficient contract performance.

By not giving small business concerns the maximum opportunity to contract at the Laboratory, NNSA will miss opportunities to reduce cost, and ensure that the President's Small Business Agenda is implemented. We estimated expanding small business opportunities at the Laboratory could potentially save the Department of Energy from \$461,000 to \$1.9 million per year for custodial, landscaping, and medical services.

We made recommendations designed to help NNSA strengthen management controls at the Laboratory to expand small business opportunities.

MANAGEMENT REACTION

Management concurred with the recommendations to identify small business opportunities for internally performed functions and to conduct appropriate oversight activities. Management's comments are included in Appendix 4.

Attachment

cc: Deputy Secretary
Under Secretary for Energy
Under Secretary for Science
Administrator, National Nuclear Security Administration
Chief of Staff
Director, Office of Economic Impact and Diversity

REPORT ON MANAGEMENT CONTROLS OVER SMALL BUSINESS OPPORTUNITIES AT LAWRENCE LIVERMORE NATIONAL LABORATORY

TABLE OF CONTENTS

Small Business Opportunities

Details of Finding	1
Recommendations and Comments.....	6

Appendices

1. Common Small Business Functions	7
2. Prior Reports	8
3. Objective, Scope, and Methodology.....	9
4. Management Comments	11

Laboratory Small Business Practices

Lawrence Livermore National Laboratory (Laboratory) was not identifying functions that could be subcontracted to small businesses even though it was practicable and cost effective to do so. Specifically, the Laboratory was performing functions that are commonly performed by small businesses even though there were local small businesses available to perform them. Additionally, other Federal facilities with similar labor markets and/or requirements were using small businesses to perform these functions at equal to or reduced cost, thus making contracting with small businesses practicable and cost effective. A recent Department of Energy (Department) study also identified potential areas for the Laboratory to increase its use of small businesses.

Laboratory employees were performing many functions that are commonly performed by local small businesses. Small businesses were available to the Laboratory to perform these functions, such as custodial, landscaping, pest control, and medical services. Specifically, the Federal Central Contractor Registration Database, which lists qualified small businesses by function, identified small businesses locally available to the Laboratory for 13 functions that we judgmentally selected from a multi-site list of commonly performed activities. (See Appendix 1 for a list of the functions). For example, there were 26 custodial small business concerns within 65 miles of the Laboratory.

Furthermore, other Federal facilities in the same labor markets and/or with similar requirements as the Laboratory had successfully contracted some of these functions to small business concerns. As discussed below, an Air Force station, a National Aeronautic Space Administration (NASA) research center, and the Department's Stanford Linear Accelerator Center (SLAC), all within 65 miles of the Laboratory, as well as the National Nuclear Security Administration's (NNSA) Sandia National Laboratories-California (Sandia), also located in Livermore, California, had successfully subcontracted work at a reduced labor cost to small businesses in the areas of custodial and landscaping and pest control. Although these other Federal facilities did not have the same medical requirements as the Laboratory, the Department's Hanford Site in Washington State had successfully obtained such services at reduced costs from a combined small/large business

entity. Similar small business medical support services companies were also available to the Laboratory. The following examples demonstrate that there were practical and cost-effective opportunities¹ to use small businesses to perform functions currently performed by the Laboratory.

Custodial

Although the Laboratory and a large business concern performed custodial services at the Laboratory at a cost of \$5.3 million each year, the other Federal facilities included in our review subcontracted this function to small businesses at reduced costs. For example:

- An Air Force Station, located in Sunnyvale, California, about 30 miles from the Laboratory, relied on a small business to perform all facility maintenance functions. The custodial base labor rates, excluding overhead burden, paid under the Air Force small business contract were approximately 33 percent less than the base labor rates for Laboratory employees, representing a potential savings of about \$816,000 per year if the Laboratory were to award a similar contract.²
- A NASA research center, located about 37 miles from the Laboratory, also relied on small business concerns for custodial services. This facility relied on two small business concerns for its custodial services. One was a disabled veteran's small business and the other was a small disadvantaged business. Both contracts paid the same unionized labor rates that were about 27 percent lower than the Laboratory employee rates. The custodial small business contract terms at this facility could save the Laboratory about \$654,000 annually.³

¹ Although we could not generally obtain fully burdened labor costs for comparison purposes, it is likely that small businesses overhead rates would be equal to or less than the Laboratory because of their smaller infrastructure, benefits, and other support costs.

² We could not compare fully burdened rates, because the Air Force Station considers overhead burdens to be proprietary information. However, Air Force contracting personnel agreed to confidentially compare the fully burdened Laboratory custodial labor rates with their fully burdened small business subcontract rates and verified that they were significantly less.

³ Like the Air Force Station, NASA would not provide burden rates for comparison purposes.

-
- Sandia, located across the street from the Laboratory, also used a small business¹ to provide custodial services. Sandia's small business contract labor rates could save the Laboratory about \$108,000 annually.

Laboratory officials expressed concerns about using subcontracted custodians in secure areas; however, the Air Force site demonstrated that contracting custodial functions under similar security restrictions was possible, practicable, and cost effective. For example, the Air Force Station managed common and controlled resources for the Air Force Satellite Control Network, and like the Laboratory, had security restricted operations.

Landscaping & Pest Control

Laboratory employees provided the vast majority of the landscaping and gardening services, including pest control, at a budget of about \$1.9 million per year. However, all of the other Federal facilities included in our review subcontracted these functions to small businesses at labor rates equal to or less than those incurred by the Laboratory. For example:

- The SLAC, located about 65 miles from the Laboratory, used a firm fixed-price contract with a small business concern for its landscaping and pest control services. Using the terms of SLAC's small business contract, we estimated that the Laboratory could save up to \$268,000 per year. Our comparison used fully burdened costs.
- The NASA research center also relied on a small business concern for landscaping services. Due to strict contracting requirements, NASA was able to keep landscaping costs low. The landscaping small business contract terms at this facility could save the Laboratory about \$700,000 annually.
- The Air Force Station also used a small business concern to perform its landscaping and pest control at a labor rate that was equal to the \$24 per hour Laboratory landscaping employee labor rate. The Air Force stated that the Laboratory burden rate for landscaping could not be compared to their small business burden rates because the small business burden rates included additional costs such as supplies and protective clothing.

¹ The Sandia small business contractor was a small business when the contract was let, but is now a large business.

Laboratory managers expressed concern about using small businesses to provide services in this area. They stated that there are special requirements to ensure that the application of pest control chemicals do not impact biosciences research. However, proper contract development and management could ensure that a small business follows Laboratory procedures in the application of pest control chemicals, or exclude this activity from other subcontracted landscaping functions.

Medical Services

Medical support functions performed by the Laboratory also offer an opportunity to obtain small business services at reduced costs. Currently, 93 percent of the medical functions at the Laboratory are performed by its employees, including services such as physical examinations, beryllium disease testing, and psychological testing at a cost of \$4.2 million annually.² In contrast, the Department's Hanford Site, in Richland, Washington, which provides similar medical services to its employees, successfully converted this function from its management and operating contractor to a small/large business partnership at a savings of about \$1 million per year. Both the Hanford small business contractor and another small business contractor in the Laboratory market area stated they were capable and willing to perform the tasks performed by the current Laboratory medical facility. Based on the cost savings at Hanford, we calculated that the Laboratory could potentially save \$353,000 per year using a similar small business contracting method. This estimate excludes the cost of a research program at the Laboratory, which was identified as dissimilar in scope from the Hanford medical program.

Laboratory managers also expressed concerns about subcontracting the occupational medicine function to a small business because of its importance to ensuring human reliability in sensitive areas such as safety and security. However, the Hanford Site has similar concerns and has demonstrated that a small business can be assigned to perform human reliability activities.

² There were no similar medical services performed at the other Federal facilities included in our review in California.

Study Confirms Small Business Practicability

Prior to this audit, the Department's Office of Small and Disadvantaged Business Utilization also identified functions, such as occupational medicine, maintenance and operation of facilities, and information resources management, that are small business opportunities at the Laboratory. The office recommended further study of these functions including a comparison with other Federal agencies such as discussed above.

Lack of Management

Although the Laboratory contract requires it to award small business subcontracts to the fullest extent consistent with efficient contract performance, it did not establish and implement management controls to identify small business opportunities for functions performed by Laboratory employees. The Laboratory had no organization at the institutional (laboratory-wide) level tasked to identify such opportunities. Specifically, although the Laboratory's procurement department looked for small business opportunities within the current subcontract base, there was no high-level institutional effort to identify small business subcontracting opportunities within the internally performed functions.

Furthermore, the NNSA's Livermore Site Office (Livermore) did not ensure that the Laboratory was identifying small business opportunities to the maximum extent practicable. As previously noted, in its contract, the Laboratory agreed to award small business subcontracts to the fullest extent consistent with efficient contract performance. However, Livermore's annual evaluation of the Laboratory was limited to the Laboratory meeting its small business goals, which are based on total procurement dollars and did not take into account internally performed functions that could be subcontracted out to small businesses.

Missed Opportunities

The Laboratory could save about \$461,000 to \$1.9 million per year for custodial, landscaping, and medical services if it maximized the use of small business contracting opportunities. Further, NNSA will miss opportunities to ensure that the President's Small Business Agenda is implemented, if it does not ensure that Livermore breaks out functions to contract with small businesses to the maximum extent practicable.

RECOMMENDATIONS

We recommend that the Manager, Livermore Site Office:

1. Direct the Laboratory to perform analysis at the institutional level to identify small business opportunities in internally performed functions; and,
2. Establish management controls to ensure that the Laboratory meets established contract requirements to maximize small business contracting opportunities to the greatest extent practicable.

**MANAGEMENT
COMMENTS**

Management agreed with the recommendations and commented that the Site Office will direct the Laboratory to reestablish its policy on "Master Make-or-Buy Plan". Once the plan is approved, surveillance activities will be conducted to ensure that the Laboratory has implemented an institutional process that identifies cost-effective small business contracting opportunities to the maximum extent practicable. Officials also commented that NNSA will expand its complex-wide management controls to include improved Site Specific Program Execution Plans and Nationwide contracting mechanisms.

Additionally, NNSA requested that the report address studies the Laboratory had performed on potential outsourcing of various functions.

NNSA provided a number of changes to the report for clarity. These comments have been incorporated into the body of the report where appropriate. Management's response is included in its entirety in Appendix 4.

**AUDITOR
COMMENTS**

Management's comments are responsive to our recommendations.

During the audit, we recognized that the Laboratory had performed three outsourcing studies within the last five years, some of which included benchmarks and comparisons to industry. However, since none reached conclusions about the practicability of using small businesses, they are not addressed in the body of this report.

COMMON SMALL BUSINESS FUNCTIONS

Listed below are the 13 Laboratory functions that we judgmentally selected from a multi-site list of 96 commonly performed functions. In each of these functions, Laboratory employees were performing the work, in full or a substantial portion of the workload, even though local small businesses were available.

- Computer Help Desk
- Custodial
- Hazardous Waste
- Industrial Hygiene
- Landscaping & Pest Control
- Low Level Software
- Machine Shop & Fabrication
- Medical Services
- Payroll
- Plant Mail
- Shipping & Receiving
- Site Transportation (Taxi)
- Trash Removal

PRIOR REPORTS

Office of Inspector General Report

- *The Department's Management and Operating Contractor Make-or-Buy Program* (DOE/IG-0460, February 2000). This audit found that three of four contractors reviewed had either not included all functions in their make-or-buy plans or had not scheduled cost-benefit analysis for many outsourcing candidates. A cost savings of \$5.3 million was estimated if cost-benefit analyses were conducted. The report recommended that the Department of Energy (Department) develop guidance for evaluating and monitoring contractor functions and make-or-buy efforts.

Government Accountability Office Reports

- *DOE Contracting: Improved Program Management Could Help Achieve Small Business Goal* (GAO-06-501, April 7, 2006). The Government Accountability Office found that the Department had some success in redirecting to small business portions of contracts to manage large Departmental facilities, as well as in securing additional small business prime contracting opportunities. However, the Department was unable to meet its small business prime contracting goal in four of the past five years because it had not defined the necessary concrete steps nor collected sufficient small business program information to achieve its prime contracting goal. The report also stated that other Federal agencies with missions similar to the Department periodically evaluated their programs and made changes intended to improve performance.
- *Department of Energy: Improved Oversight Could Better Ensure Opportunities for Small Business Subcontracting* (GAO-05-459, May 2005). The report found that the Department's facility management contractors' small business subcontracting achievements were not useful for monitoring purposes because the reported data overstated subcontracting achievements in two ways. First, all of the contractor-reported data incorrectly excluded some large-business subcontracts, beyond what Federal reporting guidelines allowed. Second, even when all relevant subcontracts were included, the contractor-reported data could still overstate contractors' subcontracting achievements. Because a contractor could decide to subcontract only a small amount of its total Federal contract, the portion of subcontracted dollars going to small businesses could, by comparison, appear misleadingly large.

Appendix 3

OBJECTIVE

The objective of our audit was to determine whether the Lawrence Livermore National Laboratory had identified laboratory functions that could be subcontracted to small business concerns.

SCOPE

The audit was performed between December 2005 and June 2006. Audit work was primarily performed at the Department's Headquarters in Washington, D.C., and Lawrence Livermore National Laboratory in Livermore, California. Work was also performed with the U.S. Air Force and the National Aeronautic Space Administration (NASA) in Sunnyvale, California; Sandia National Laboratories in Livermore, California; and, the Stanford Linear Accelerator Center in Menlo Park, California. Auditors also contacted personnel at the Department's Hanford Site in Richland, Washington, and Savannah River Site in Aiken, South Carolina.

METHODOLOGY

To accomplish the audit objective, we:

- Identified common small business functions;
- Benchmarked laboratory functions performed by Laboratory employees against other Federal facilities' practices;
- Analyzed key documents related to small business utilization at the Laboratory and various Federal and Departmental sites;
- Interviewed key NNSA Headquarters, Departmental Headquarters, Livermore Site Office, and Laboratory personnel;
- Examined prior Office of Inspector General and Government Accountability Office reports; and,
- Reviewed applicable Public Laws, other Departmental guidance, related correspondence, and contracts.

The audit was conducted in accordance with generally accepted Government auditing standards for performance audits and included tests of internal controls and compliance with laws and regulations to the extent necessary to satisfy the objective of the

audit. Accordingly, we assessed the significant internal controls and performance measures established under the Government Performance and Results Act of 1993 and found that measures specifically related to utilization of small business concerns had been established for contracted out functions. 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. We determined that controls over computer-processed data were not integral to meeting the objectives of our audit. We discussed the finding with officials from the Livermore Site Office and the Laboratory on July 19, 2006.



Department of Energy
National Nuclear Security Administration
Washington, DC 20585



AUG 07 2006

MEMORANDUM FOR George W. Collard
Assistant Inspector General
for Performance Audits

FROM: Michael C. Kane *James B. Hanford*
Associate Administrator
for Management and Administration

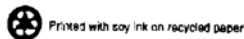
SUBJECT: Comments to Small Business Opportunities Draft
Report; A06LL017/2005-44293

The National Nuclear Security Administration (NNSA) appreciates the opportunity to review the Inspector General's (IG) draft report, "Management Controls Over Small Business Opportunities at Lawrence Livermore National Laboratory." We understand that the IG conducted this audit based on the significance of small business to the President and Congress to determine whether the Laboratory had identified functions that could be subcontracted to small business concerns.

We agree with the recommendations that the Laboratory perform an analysis at the institutional level to identify small business opportunities for internally performed functions consistent with contract requirements and that the Site Office conduct their appropriate oversight activities. Having said that, we request that the IG be sensitive to the fact that the Laboratory contract is undergoing recompetition and NNSA is equally sensitive to any perception that employees may have that this report may espouse a reduction in force.

For the sake of clarity:

- Refer to the Laboratory as LLNL or the Laboratory rather than as Livermore. This will differentiate between the Laboratory and the Site Office.
- Refer to the studies performed and conclusions reached by the Laboratory on potential outsourcing of various functions.
- Page 3, Medical Services. The medical program at Hanford has been run as an organizationally separate, multi-contractor facility that provides only



medical services. The \$380,000 estimated cost savings should be revised to consider the dissimilar scope of work at the Laboratory.

- Appendix 1, Common Small Business Functions. The report should clarify that this listing of 13 functions was used by the IG to develop/select its sample.

Comments related to the recommendations for the Site Office Manager follow:

Recommendation 1: Direct Livermore to perform an analysis at the institutional level to identify small business opportunities in internally performed functions.

Management Comment.

The Site Office will direct the Laboratory to reestablish its policy on "Master Make-or-Buy Plan" consistent with Contract Clause I.070.

Recommendation 2: Establish management controls to ensure that Livermore meets established contract requirements to maximize small business contracting opportunities to the greatest extent practicable.

Management Comment. .

Once the Laboratory's Make-or-Buy Plan is approved, the Site Office will conduct surveillance activities to ensure that LLNL has implemented an institutional process that identifies cost effective small business contracting opportunities to the maximum extent practicable. We anticipate all actions related to this to be completed by January 31, 2007.

Comments Related to NNSA's Small Business Program

From an NNSA corporate perspective, management controls in place at the Site Office could be expanded complex-wide. Site Specific Program Execution Plans could better identify the method and related awards associated with subcontracting out additional work. Site management can establish the process, select evaluation criteria, set opportunity targets and goals, and determine incentives for correct behavior including the use of award fee. Equally, the savings identified in this report could be significantly expanded if management controls include collaboration/cooperation to develop and provide nationwide contract mechanisms to leverage the buying power of NNSA's Sites that have similar requirements. Better service delivery could be negotiated, not to mention the added benefit of lowering contract administration costs.

NNSA is progressing with its Spend Analytics program to determine the best contract opportunities available across multiple sites. Through the Spend Analytics process, NNSA Management and Operating contractors have provided all contract purchasing transactions to a central database which has been categorized by type and commodity. Once the Federal/contractor management group identifies the most likely candidates for leveraged buying, “commodity teams” are formed to craft an acquisition approach for the requirement. If the requirement is strictly for the contractor community, the effort is also communicated to the Integrated Contractor Purchasing Team to determine if other contractors outside of NNSA have an interest in the acquisition. If both NNSA Federal and contractor communities have a need for the product or service, the NNSA acquisition office may consider a direct Federal prime contract for use by all parties.

While this is a major change in the way NNSA has conducted business, the objectives of this effort are better customer product or service delivery using fewer contracts that are better constructed to take advantage of the total organization’s buying power while reducing contract administration.

Should you have any questions related to this response, please contact Richard Speidel, Director, Policy and Internal Controls Management.

cc: Camille Yuan Soo-Hoo, Manager, Livermore Site Office
David Boyd, Senior Procurement Executive
Karen Boardman, Director, Service Center

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