



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

# Audit Report

## Report On Management Controls Over Subcontract Administration at the National Security Laboratories

**OAS-M-04-06**

**August 2004**



## Department of Energy

Washington, DC 20585

August 19, 2004

MEMORANDUM FOR THE ASSOCIATE ADMINISTRATOR, MANAGEMENT AND  
ADMINISTRATION, NNSA

FROM:

A handwritten signature in black ink, appearing to read "Rickey R. Hass".

Rickey R. Hass

Assistant Inspector General  
for Audit Operations  
Office of Inspector General

SUBJECT:

INFORMATION: Audit Report on "Management Controls Over  
Subcontract Administration at the National Security Laboratories"

### BACKGROUND

The National Nuclear Security Administration's (NNSA) Lawrence Livermore, Los Alamos, and Sandia National Laboratories develop and apply science and technology to ensure the safety and reliability of the U.S. nuclear stockpile, reduce the threat of mass destruction, and solve national problems in defense, energy, environment, and infrastructure. The Laboratories fulfill their missions, in part, by subcontracting a significant portion of their work. For example, in Fiscal Year 2002, the Department obligated \$4.1 billion to Lawrence Livermore, Los Alamos, and Sandia – about \$1.8 billion of which was expended on goods and services provided by subcontractors.

Management contractors that operate these Laboratories are expected to ensure that Federal funds entrusted to their care are expended appropriately, that questioned costs are resolved in a timely manner, and that subcontracts are closed when all actions are complete. In the Federal community, audits are routinely used to evaluate cost-allowability and the subcontract closeout process. Depending on the type and value of subcontracts, the Laboratories are charged with ensuring that audits such as pre-award, interim, and closeout are performed. Based on the extent and importance of subcontracting to the Department's mission, we conducted this audit to determine whether NNSA's National Security Laboratories were effectively administering subcontracts.

### RESULTS OF AUDIT

Our audit found that during Fiscal Years 2001 and 2002, Lawrence Livermore, Los Alamos, and Sandia did not always effectively manage certain aspects of the subcontracting process. We noted that the Laboratories did not always ensure that audits were conducted, questioned costs were resolved, and completed subcontracts were closed in a timely manner. For example:

- At Los Alamos, eleven completed subcontracts, valued at \$68 million dollars, had not received necessary audit coverage. Of a sample of 93 active subcontracts with an aggregate value of \$1.3 billion, only two interim audits had been conducted.
- At Los Alamos and Sandia, we noted that action to resolve about \$10 million in questioned subcontract costs remained incomplete; and,



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- The Laboratories had not initiated or completed action to close 287 subcontracts evaluated during our review.

These problems occurred because the Laboratories lacked appropriate controls and NNSA had not developed specific performance measures related to subcontract administration. As a result, NNSA did not have assurance that all subcontract costs reimbursed to the Laboratories were allowable, questioned costs were recovered, and funds associated with completed subcontracts were promptly recovered.

Near the end of our review, the Laboratories told us that they had planned or actually implemented improvements to their respective subcontract administration processes. For example, Lawrence Livermore plans to improve tracking of future questioned costs and oversight of its subcontract review function. Los Alamos increased contract audit staff size, developed new work processes and is revamping its purchasing system. Sandia updated its policies and procedures to ensure coordination between the contract administrator, the contract auditor, and the subcontractor. Sandia also implemented an integrated process for monitoring the closeout process.

This audit is part of a series of reports on subcontract administration by management contractors. We recently issued a report on *Management Controls over Subcontract Administration by the National Renewable Energy Laboratory* (OAS-M-04-02, March 2004). Although we learned that the Department plans to assess contractors' purchasing systems to deal with problems related to subcontract administration in general, additional action is needed to address the issues described in our report. In that connection, we have made several recommendations designed to ensure that Federal interests are adequately protected.

### MANAGEMENT REACTION

Although NNSA agreed that tracking mechanisms and on-going training were needed, it generally disagreed with our recommendations. Specifically, management disagreed with recommendations to develop additional guidance, procedures, or subcontract administration related performance measures. Instead, management stated that a more consistent application of existing guidance and/or procedures was needed. Management comments are included in their entirety as Appendix 3.

We acknowledge that the Laboratories currently have procedures or desk guides that relate to subcontract administration. However, in our judgment, detailed guidance or procedures that integrate actions required by each organization involved in the subcontract administration process would permit cross-functional monitoring and would better address coordination issues discussed in our report. Further, implementation of performance measures would help ensure that the Laboratories are held accountable for consistently applying NNSA guidance related to subcontract administration.

### Attachments

cc: Director, Policy and Internal Controls Management, NA-66  
Deputy Assistant Secretary for Business Operations, ME-60

REPORT ON MANAGEMENT CONTROLS OVER  
SUBCONTRACT ADMINISTRATION AT THE NATIONAL  
SECURITY LABORATORIES

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# SUBCONTRACT ADMINISTRATION

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## Managing the Subcontracting Process

The National Nuclear Security Administration's (NNSA) Los Alamos National Laboratory (Los Alamos), Lawrence Livermore National Laboratory (Livermore), and Sandia National Laboratories (Sandia) did not always effectively manage all aspects of the subcontract administration process. Specifically, certain Laboratories did not always perform needed subcontract audits, closeout completed subcontracts, or resolve questioned costs.

### Assurance through Audits

While we noted that Sandia provided subcontract audit coverage, Livermore and Los Alamos did not always seek or provide assurance regarding the propriety of subcontract costs. In particular, the Sandia Contract Audit Department performed pre-award, interim, and closeout subcontract audits. In contrast, Los Alamos and Livermore, both managed by the University of California, did not always arrange for or otherwise ensure that audits were performed of their subcontractor's records, operations, and transactions with respect to costs claimed. Specifically:

- Los Alamos did not perform any type of audit (pre-award, interim, closeout) on 11 subcontracts for which the period of performance had ended. These subcontracts were valued at \$68 million and were closed by procurement officials during Fiscal Years (FY) 2001 and 2002. Furthermore, out of a sample of 93 active subcontracts valued at \$1.3 billion, only two interim audits were completed. During our audit, Los Alamos officials informed us that they recognized that audit coverage was not sufficient. Consequently, Los Alamos initiated corrective actions to increase the contract audit staff and is developing processes to ensure that audits are performed as needed.
- In lieu of conducting audits of its subcontracts, Livermore elected to perform cost/price analytical reviews. While such an approach is normally considered acceptable for low-dollar value and fixed-price instruments, based on information obtained from other Departmental contractors and Federal sources, it is generally not appropriate for larger cost-type subcontracts. We took exception to Livermore's reviews because, unlike an audit, they did not determine whether internal controls over the subcontractors' costs were proper or were in

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place and operational. Because of the impracticability of auditing all subcontract expenditures, reviews of control systems are, in our opinion, important for preventing or detecting improper or fraudulent charges in a timely manner. Furthermore, Livermore's reviews were not performed by a group that was organizationally independent.

Livermore management, in commenting on a draft of our report, did not agree with our observations. Rather, they indicated that an efficient internal system of reviews was utilized for low dollar value subcontracts (less than \$1 million) and external government agencies were utilized for subcontracts over \$1 million. Livermore also planned to enhance organizational independence by having the Livermore Audit and Oversight Department perform peer reviews of the subcontract review function and ensure that all cost disputes are appropriately addressed. We found, however, that 26 of 81 subcontracts individually valued at over \$1 million were actually not audited by external government agencies but by Livermore's internal review function. We examined a limited number of these subcontract reviews and found that they did not include steps to thoroughly evaluate internal controls. In addition, through an examination of review/audit programs and interviews with Livermore's staff, we confirmed that organizational independence impairments existed due to the subcontract administration reporting structure. Specifically, Livermore's procurement manager is responsible for both the review function and subcontract administration.

#### Subcontract Closeouts

All three Laboratories did not effectively close out completed subcontracts in a timely manner. Completed subcontracts are those subcontracts for which the period of performance has ended. Furthermore, the subcontract closeout process was not coordinated among the departments involved (i.e. contract audit, procurement, accounts payable, accounts receivable). For example, we found instances where the final subcontract audit had been performed but the procurement department had not taken the necessary steps to ensure that the subcontract was closed within the procurement system. Additionally, we found instances where the procurement

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department had significantly delayed the initiation of the closeout process upon subcontract completion.

Based on information developed during related Office of Inspector General audits of subcontracting activities at other Departmental contractors, we determined that an appropriate benchmark for subcontract closeout was within three years after the period of performance had ended. As of the end of FY 2002, the three Laboratories had a total of 287 subcontracts that had not been closed out in a timely manner. Specifically:

- Los Alamos had 38 completed subcontracts awaiting closeout for three years or more. Los Alamos officials stated that they did not have the management reporting tools in place to effectively monitor the status of completed subcontracts. Furthermore, Los Alamos procurement could not readily determine the total number of final subcontract audits they had received, questioned costs that had been resolved, or costs that required resolution prior to subcontract closeout.
- Similarly, we found that Livermore had 90 completed subcontracts awaiting closeout for three years or more. Although Livermore was not required to follow the three-year benchmark, it adopted it as a means to monitor subcontract closeouts. An official acknowledged that, in some cases, Livermore had not initiated the closeout process even after the three-year window had passed. However, the same official indicated that the Laboratory had recently developed a pre-closeout metric to ensure that the process is initiated within 90 days of subcontract completion.
- Sandia also had 159 completed subcontracts that had been awaiting closeout for at least three years. An official explained that they did not perform closeout audits on 93 of the subcontracts because they were considered to be low risk. While audits were performed on the remaining 66 subcontracts, none of the 159 were formally closed in the procurement system. We learned that problems we discovered were not unique and had been previously reported by Sandia's Internal Audit Department in July 2003. That report disclosed that management had not established adequate controls to formally close 153 completed contracts – in which close-

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out audits were performed – valued in excess of \$54 million. Sandia management officials concurred with that audit finding and told us that they have implemented a manual system to track and monitor the status of completed subcontracts. An electronic system is under development.

These issues are similar to those observed during our *Audit on Subcontract Administration by the National Renewable Energy Laboratory* (OAS-M-04-02, March 19, 2004). During that audit, we found that completed subcontracts were awaiting closeout for at least 3 and sometimes longer than 15 years.

#### Unresolved Costs

Sandia and Los Alamos did not resolve questioned costs identified in a number of subcontract audits. Our evaluation of 68 subcontract audits disclosed that contract auditors questioned about \$13.5 million in costs, \$12.9 million at Los Alamos and \$600,000 at Sandia. However, their respective procurement departments could only confirm that a total of \$3.5 million of the questioned costs had been resolved. For example, a Sandia subcontract audit report dated May 2002 questioned costs totaling about \$111,000, yet the Contract Administrator could not determine whether the costs were ultimately resolved. At Livermore, questioned costs were identified on a contract-by-contract basis. As a result, we were unable to determine a total amount of questioned costs or whether the costs had been resolved. To their credit, the Laboratories recognized the need to track the resolution of questioned costs at a summary level and are implementing mechanisms to accomplish this task.

After reviewing a draft of our report, Los Alamos management told us that only \$387,000 of the remaining questioned costs were still unresolved. However, despite our request, Los Alamos officials were unable to provide documentary evidence that any of the remaining questioned costs were resolved or were in negotiation.

#### **Management Controls and Guidance**

The Laboratories did not always properly administer the subcontract audit and closeout process or effectively recover unallowable costs because they lacked appropriate controls. For example:



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- With a staff of four auditors, the Los Alamos Contract Audit Department did not have adequate resources to perform subcontract audits;
  - Sandia and Los Alamos lacked established formal procedures or training regarding cost resolution and both lacked tracking mechanisms to ensure that questioned costs were resolved; and,
  - While the Laboratories had some subcontract closeout procedures in place, such procedures lacked specific detail and were not integrated among all departments responsible for subcontract administration. For example, Sandia procedures did not ensure that all departments involved in the subcontract closeout process were fully cognizant of actions they were required to complete. Sandia recognized this inadequacy and has recently implemented an integrated tracking mechanism.

Livermore did not perform subcontract audits because it believed that the contract with the Department was vague regarding the level of audit effort required for subcontracts. As previously stated, Livermore elected to perform cost/price analytical reviews instead.

NNSA had not developed and incorporated specific performance measures related to subcontract administration in the Laboratories' contracts. While measures were in place to annually perform high-level reviews of the Laboratories' procurement systems, they did not specifically address the subcontract administration process. NNSA's Director of Procurement and Assistance Management informed us that due to general concerns over the Laboratories' subcontract administration, NNSA plans to establish a Peer Review Program that will assess whether its contractors have adequate purchasing systems.

**Benefits of Increased Assurance**

Without full and adequate subcontract reviews, NNSA does not have assurance that all costs reimbursed to Los Alamos, Livermore, and Sandia for their subcontracts are allowable. Unless and until needed audits and other close-out procedures are performed for the 287 subcontracts discussed in our report, remaining unexpended funds provided to subcontractors may not be recovered and put to better use. Furthermore, at least \$10 million in questioned costs that remain unresolved are not available to satisfy other mission needs.

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**RECOMMENDATIONS**

We recommend that the Director of Procurement and Assistance Management, NNSA, take action to improve subcontract administration at its National Security Laboratories. Specifically:

1. Require the development and implementation of detailed subcontract administration guidance or procedures that are integrated among the organizations responsible for audit coverage, close-out procedures, and resolution of question costs for subcontracts;
2. Ensure that the Laboratories:
  - (a) Establish tracking mechanisms for questioned cost resolution,
  - (b) Develop and implement training related to the subcontract audit and closeout process; and,
3. Develop and implement subcontract administration related performance measures that focus on the issues addressed in our report for contractors under its purview.

**MANAGEMENT REACTION**

Although management agreed that tracking mechanisms and on-going training were needed, they generally disagreed with the recommendations. Specifically, management disagreed with recommendations to develop additional guidance, procedures, or subcontract administration related performance measures. Rather, management stated that a more consistent application of existing guidance and/or procedures was needed. Additionally, NNSA stated that it was increasing its reliance on contractor assurance processes, which required contractors to directly address issues in the most efficient and effective manner possible with limited resources. Management comments are included in their entirety in Appendix 3.

**AUDITOR COMMENTS**

We acknowledge that the Laboratories currently have procedures or desk guides that relate to subcontract administration. However, in our judgment, integrated detailed guidance or procedures among all departments involved in the subcontract administration process (i.e. contract audit, procurement, accounts payable, accounts receivable) could help address the issues discussed in our report. Further, we believe that the implementation of performance

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measures would ensure that the Laboratories responsible for subcontract administration are held accountable, especially since NNSA has placed an emphasis on increasing reliance on contractor assurance processes.

Although management disagreed with our recommendation to develop guidance, we learned that two of the Laboratories recently integrated standard procedures or were planning to develop processes to address audit coverage, closeout, and the resolution of questioned costs. Sandia has updated its policies and procedures to require specific closeout documents and a coordinated interface between the contract administrator, contract auditor, and the subcontractor. Sandia has also implemented an integrated process for monitoring the contract closeout process among the organizations responsible for subcontract administration. Livermore plans to address independence issues by having its internal Audit & Oversight Department perform peer reviews of the subcontract review function on a cyclical basis. That same organization will also obtain copies of all significant closeout reports to ensure that contract cost disputes are appropriately addressed. Further, Livermore plans to develop procedures for audit coverage, closeout and questioned cost resolution.

We made adjustments to our report based on technical comments obtained from each of the Laboratories. We discussed the report findings with Livermore, Los Alamos, and Sandia on March 17, 2004, and NNSA subsequently waived an exit conference.

# Appendix 1

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## **PRIOR AUDIT REPORTS**

- *Audit on Management Controls over Subcontract Administration by the National Renewable Energy Laboratory (NREL) (OAS-M-04-02, March 19, 2004).* The audit report revealed that NREL did not always adequately protect Government property in the hands of its subcontractors, and did not ensure that the Government's financial position was protected by closing out subcontracts in a timely manner. Specifically, the audit identified that NREL had not de-obligated as much as \$3 million of unexpended funds that may be available, or recovered at least \$2.9 million in property associated with completed or expired contracts.
- *Audit on Management Controls over Subcontract Administration by the Argonne National Laboratory (OAS-M-04-01, March 12, 2004).* The audit report found that the laboratory relied heavily on sole source procurements without adequately supporting their use, and Government property acquired by subcontractors was not always protected.
- *University of California's Costs Claimed and Related Internal Controls for Operation of Los Alamos National Laboratory (DOE/IG-0596, April 2003).* The audit found internal control weaknesses in the laboratory's audit function, its financial system reconciliation, payroll and travel approval processes, financial management personnel turnover and financial system review and approval. The audit report also identified a significant backlog in the completion of required audits of laboratory contracts.

## Appendix 2

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<b>OBJECTIVE</b>	To determine whether NNSA Laboratories were effectively administering subcontracts.
<b>SCOPE</b>	The audit was performed from June 2003 to March 2004, at the NNSA Service Center in Albuquerque, NM; Sandia National Laboratories in Albuquerque, NM; Los Alamos National Laboratory in Los Alamos, NM; and Lawrence Livermore National Laboratory in Livermore, CA. The scope of the audit covered the Laboratories' subcontract administration process from FY 2001 through FY 2002. This included subcontract audits issued and performed by the Sandia and Los Alamos Contract Audit Departments and reviews performed by the Livermore Subcontract Review function during that period. The audit work included a review of completed subcontracts awaiting closeout.
<b>METHODOLOGY</b>	<p>To accomplish the audit objective, we:</p> <ul style="list-style-type: none"><li>• Interviewed NNSA/Albuquerque, Lawrence Livermore National Laboratory, Los Alamos National Laboratory, and Sandia National Laboratories personnel;</li><li>• Reviewed the contract audit functions at each Laboratory to determine if subcontract audits were being performed;</li><li>• Reviewed contract audit workpapers to determine if all material findings were reported;</li><li>• Determined the total subcontractor costs questioned by the Contract Audit Department at Sandia and Los Alamos and, for a selected sample, tested for resolution of the questioned costs;</li><li>• Determined subcontract closeout backlogs at each Laboratory; and,</li><li>• Reviewed prior audit reports related to the audit objective.</li></ul>

We conducted the audit according to 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 audit objective. Because our review was limited, it would not necessarily have disclosed all internal control deficiencies that may have existed at

## Appendix 2

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the time of our audit. We did not rely on computer processed data to accomplish our audit objectives. We discussed our findings with NNSA and Laboratory officials on March 17, 2004. NNSA subsequently waived an exit conference.




Department of Energy  
National Nuclear Security Administration  
Washington, DC 20585



JUN 21 2004

MEMORANDUM FOR Lawrence R. Ackerly  
Division Director  
NNSA Audits Division  
Office of Inspector General

FROM: Michael C. Kane   
Associate Administrator  
for Management and Administration

SUBJECT: Comments to Draft Subcontract Administration Report,  
A03AL038 / 2004-18617

The National Nuclear Security Administration (NNSA) appreciates the opportunity to have reviewed the Inspector General's (IG) draft report, "Management Controls Over Subcontract Administration at the National Security Laboratories." We understand that, based on the extent and importance of subcontracting to our mission, the IG conducted an audit to determine whether NNSA's laboratories were effectively administering subcontracts.

The report states that the auditors concluded that our laboratories did not always effectively manage certain aspects of the subcontract administration process thereby leading to several problems cited in the draft report. The auditors believed that the problems occurred because the laboratories lacked appropriate controls and that NNSA had not developed specific performance measures related to subcontract administration.

This draft report exemplifies a core precept of NNSA's methodology of operations where **programmatic functions are managed** (requirements levied) **at Headquarters**, the **contracts are managed by the Site Managers**, and the laboratories and production facilities are **held accountable** to respond to those requirements in the most efficient manner applicable to their specific needs **with Site Management oversight and approval**. The review of the three laboratories illustrate this methodology of operation. NNSA believes that there is an adequate amount of procedures for the Laboratories to follow related to subcontract administration, pre- and post-award audits of subcontractors, resolution of audit questioned costs, and subcontract closeout. Additionally, with NNSA increasing its reliance on contractor assurance processes, it falls to the contractors to directly address issues in the most efficient and effective manner possible with limited resources. Each of the laboratories approaches subcontract administration in a different manner. For example, Lawrence Livermore National Laboratory (LLNL) utilizes a

Subcontract Administration Support Section and a Cost/Price Analyst group to support their contracting efforts. LLNL also utilizes the Defense Contract Audit Agency (DCAA) or the Department of Health and Human Services (DHHS) for subcontracts with a value over \$1 million. Both the DCAA and DHHS provide an independent audit evaluation for the laboratory. Sandia National Laboratories, on the other hand, has a significantly lower threshold than the other two weapons laboratories for obtaining pre-award audits.

NNSA acknowledges the fact that Los Alamos National Laboratory (LANL) has had difficulties. The sample of data utilized by the auditors indicates the difficulties reached into the laboratory's internal audit environment. LANL has made significant improvement within their internal control structure and operations. We believe that it is a mistake to utilize old sampling data and make conclusions against a new structure. For example, the data that was utilized by the auditors certainly validates the problems that were evident at LANL at that time. However, there are new managers, reporting relationships, and work processes that have been put into place since the time of the data sample.

I have attached technical comments that were received from Lawrence Livermore, Los Alamos, and Sandia for your review. These comments are generally related to the factual accuracy of the draft report.

Regarding the recommendations, NNSA does not, at this time, see that we need to develop guidance or procedures but, rather, require a more consistent application of existing guidance and/or procedures. We do agree for the need to have tracking mechanisms and on-going training but do not agree for the need for subcontract administration related performance measures. We believe performance measures are in place that will address the intent of the IG's recommendation.

Should you have any questions about this response, please contact Richard Speidel, Director, Policy and Internal Controls Management at 202-586-5009.

#### Attachments

cc: Robert Braden, Senior Procurement Executive, NA-63  
Karen Boardman, Director, Service Center

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