U.S. Department of Energy
Office of Inspector General
Office of Audits and Inspections

Audit Report

Allocation of Direct and Indirect Costs – Cost Accounting Standard 418 – at Lawrence Livermore National Laboratory

OAS-L-13-07 April 2013

Department of Energy
Washington, DC 20585

April 11, 2013

MEMORANDUM FOR THE MANAGER, LIVERMORE SITE OFFICE

FROM: Rickey R. Hass
Deputy Inspector General
for Audits and Inspections
Office of Inspector General

SUBJECT: INFORMATION: Audit Report on the "Allocation of Direct and Indirect Costs – Cost Accounting Standard 418 – at Lawrence Livermore National Laboratory"

BACKGROUND

The attached report presents the results of the audit of Lawrence Livermore National Laboratory's (Livermore) Allocation of Direct and Indirect Costs - Cost Accounting Standard 418, conducted to address the performance audit objective described below. The Office of Inspector General contracted with an independent certified public accounting firm, KPMG, to determine if Livermore's policies, procedures, and practices used to estimate, accumulate, and report costs on Government contracts and subcontracts complied with the requirements of Cost Accounting Standard (CAS) 418 for Fiscal Year 2012.

CAS 418 requires contractors to be consistent in the way they classify costs as direct or indirect. Additionally, CAS 418 requires contractors to maintain a written statement of accounting policies and practices for classifying direct and indirect costs, establishes criteria for accumulating indirect costs in homogeneous indirect cost pools, and provides guidance on allocating indirect cost pools to cost objectives in reasonable proportion to the beneficial or causal relationships of the pooled costs to cost objectives. Livermore's written policies and procedures relevant to CAS 418 compliance include cost accounting changes, determining direct versus indirect costs, monitoring and processing cost transfers, time and effort reporting, monitoring and liquidating indirect variances, and policies and procedures relating to the composition of each indirect cost pool.

OBSERVATIONS AND CONCLUSIONS

KPMG found that Livermore's policies and procedures were complete with regard to the areas required to support compliance with CAS 418. KPMG tested Livermore's current use of its policies and procedures governing cost accounting changes, monitoring and liquidating indirect rate variances, monitoring and processing cost transfers, and the composition of homogeneous cost of select indirect cost pools. KPMG did not identify any findings as a result of the work performed. Therefore, no recommendations were made in the report.

PERFORMANCE AUDIT

KPMG conducted the performance audit in accordance with *Government Auditing Standards* issued by the Comptroller General of the United States and the Department of Energy's Office of Inspector General Audit Manual as appropriate. *Government Auditing Standards* require that KPMG plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on the audit objective.

The Office of Inspector General monitored the progress of the audit and reviewed the report and related documentation. Our review disclosed no instances in which KPMG, did not comply, in all material respects, with the audit requirements. KPMG is responsible for the attached report dated January 17, 2013, and the conclusions expressed in the report.

Attachment

cc: Acting Administrator, National Nuclear Security Administration
Deputy Secretary
Chief of Staff

Performance Audit

Audit of the Allocation of Direct and Indirect Costs - Cost Accounting Standard 418

For the U.S. Department of Energy Office of Inspector General

Auditee: Lawrence Livermore National Laboratory (LLNL)

As of Date: January 17, 2013

KPMG LLP
1801 K Street, NW
Washington, DC 20006

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EXECUTIVE SUMMARY

January 17, 2013

Mr. Mark Mickelsen
Contracting Officer's Representative
U.S. Department of Energy
Office of Inspector General
1617 Cole Boulevard
Golden, Colorado 08401

Dear Mr. Mickelsen:

This report presents the results of our audit of the Allocation of Direct and Indirect Costs – Cost Accounting Standard (CAS) 418, at Lawrence Livermore National Laboratory (hereinafter referred to as Auditee or LLNL), conducted to address the performance audit objective described below. Our work was performed during the period October 1, 2012 through January 11, 2013, and our results, reported herein, are as of January 11, 2013.

We conducted this performance audit in accordance with *Government Auditing Standards* issued by the Comptroller General of the United States, and the U.S. Department of Energy (DOE) Office of Inspector General (OIG), Audit Manual, as appropriate. *Government Auditing 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 based on our audit objective.

The objective of our performance audit was to determine if LLNL's policies, procedures, and practices used to estimate, accumulate, and report costs on Government contracts and subcontracts complied with the requirements of CAS 418 for Fiscal Year 2012.

We reviewed the Auditee's disclosed practices for CAS 418 compliance, selected samples of transactions to test controls and compliance with disclosed practices, and considered certain areas of specific concern identified by the OIG and the National Nuclear Security Administration.

As our performance audit report further describes, we identified no findings as a result of the work we performed.

Based upon the performance audit procedures performed and the results obtained, we have met our audit objective. We conclude that LLNL's policies, procedures, and practices used to estimate, accumulate, and report costs on Government contracts and subcontracts complied with the requirements of CAS 418, considering the revised procedures implemented during Fiscal Year 2012.

This performance audit did not constitute an audit of financial statement in accordance with auditing standards generally accepted in the United States of America and *Government Auditing Standards*. KPMG was not engaged to, and did not render an opinion on the Auditee's internal controls or compliance with laws and regulations.

This report is intended for the information and use of the DOE OIG and management of the Auditee. The report is not intended to be, and should not be, used by anyone other than these specified parties.

Sincerely,

KPMG LLP

BACKGROUND

Overview of Auditee's Accounting System for Project Costing

The Lawrence Livermore National Laboratory's (LLNL or Auditee) project costing system uses Oracle's Project Costing package, which was configured to meet LLNL's requirements. The system was fully implemented in October 2008.

The Project Costing System interfaces with LLNL's Oracle General Ledger, Oracle Payables, Oracle Receivables, Oracle Purchasing (limited use), Oracle Human Resources (limited use), Oracle Assets (limited use), Enterprise Reporting Workbench, and various feeder systems. The Projects Accounting Team is the main user of the system. Various other departments have read-only access.

The Project Costing System processes quantities and raw costs for transactions, calculates burdened costs, records revenues, and performs all accounting functions for these transactions. Transaction types include labor, expenses, usages, and miscellaneous transactions referred to as expenditures.

The Project Costing System utilizes a "project" as the primary unit of work. Projects can be detailed into one or more tasks. Costs are incurred at the lowest task level.

Overview of Accounting for Direct and Indirect Costs

Projects/contracts are assigned individual project numbers and direct costs are identified and charges are made to those project numbers. Indirect costs are identified with, and accumulated under, individual departments, which in turn are identified to the various indirect cost pools used to calculate various indirect rates.

Indirect costs are recorded and billed to projects using U.S. Department of Energy (DOE)-approved provisional indirect rates. The provisional rates are adjusted to actual rates at year end, and during the accounting year, depending on established variance thresholds.

LLNL maintains the following indirect cost pools and related allocation bases:

Indirect Cost Pools	Allocation Bases
Payroll Burden (Fringe Benefits)	Standard Salary
Program Management Charge	Labor and Payroll Burden
Strategic Mission Support	Value Added
Hazard Waste Charge	Value Added
Site Support	Labor, Payroll Burden, PMC
General & Administrative (G&A)	Value-Added Basis
LDRD (R&D)	Total Cost
Safeguards & Security	Total Cost
Service Centers	Units Sold
Fee	Total Cost of project work for the DOE, National Nuclear Security Administration (NNSA), and Work for Others

Policies and Procedures for CAS 418 Compliance

Cost Accounting Standard (CAS) 418 requires contractors to be consistent in the way they classify costs as direct or indirect. CAS 418 also requires contractors to maintain a written statement of accounting policies and practices for classifying direct and indirect costs; establishes criteria for accumulating indirect costs in homogeneous indirect cost pools; and provides guidance on allocating indirect cost pools to cost objectives in reasonable proportion to the beneficial or causal relationships of the pooled costs to cost objectives.

LLNL's written policies and procedures relevant to the CAS 418 compliance include cost accounting changes, determining direct versus indirect costs, monitoring and processing cost transfers, time and effort reporting, monitoring and liquidating indirect variances, and policies and procedures relating to the composition of each indirect cost pool.

OBJECTIVE, SCOPE, AND METHODOLOGY

Objective

The objective of our performance audit was to determine if LLNL's policies, procedures, and practices used to estimate, accumulate, and report costs on Government contracts and subcontracts complied with the requirements of CAS 418 for Fiscal Year 2012.

Scope

As requested by DOE, the scope of this performance audit was restricted to reviewing LLNL's policies, procedures, and practices for compliance with CAS 418. We did not perform a comprehensive audit of the LLNL's overall accounting system or Project Costing System. In performing our procedures, we considered internal controls related to our audit objectives, but we did not perform an audit of internal controls.

We conducted this performance audit in accordance with *Government Auditing Standards* issued by the Comptroller General of the United States and the DOE Office of Inspector General (OIG), Audit Manual, as appropriate. *Government Auditing 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 based on our audit objective.

The Auditee is responsible for establishing and maintaining policies, procedures, systems, and internal controls related to compliance requirements, and to comply with CAS 418. Our responsibility is to provide findings and recommendations based on the results of our performance audit.

Methodology

As part of the performance audit of LLNL's allocation of direct and indirect costs in accordance with CAS 418, we:

- Obtained an understanding of LLNL's policies, procedures and practices for accounting for direct and indirect costs
- Reviewed applicable rules, regulations and guidance related to CAS 418
- Performed a risk assessment of LLNL's CAS 418 compliance and identified significant risks

- Reviewed LLNL's Fiscal Year 2012 and 2013 Disclosure Statements to determine if the elements of CAS 418 compliance were adequately described (i.e., current, accurate, and complete) and to identify any practices, which may be noncompliant with CAS 418
- Compared the Disclosure Statements to LLNL's actual cost accounting practices, to determine consistency in application of disclosed practices
- Discussed potential findings with the DOE OIG and LLNL
- Considered the following areas of concern identified by the NNSA:
  - Practices relating to rate adjustments and the liquidation of interim and year-end standard direct labor and indirect rate variances;
  - Overhead special allocation rates applied to National Ignition Campaign (NIC) and other self-constructed asset projects (SCAP), including the use of a reduced fee rate on NIC projects;
  - Use of non-homogeneous indirect cost pools; and,
  - Allocation base used to distribute site support overhead.

RESULTS

Auditee's Policies and Procedures

We noted that LLNL's policies and procedures were complete with regard to the areas required to support compliance with CAS 418. We tested LLNL's current use of its policies and procedures governing cost accounting changes, monitoring and liquidating indirect rate variances, monitoring and processing cost transfers, and the composition of homogeneous cost of select indirect cost pools.

LLNL's direct labor is charged to projects using standard rates, and indirect costs are billed using pre-established DOE-approved indirect rates.

We noted the following regarding direct and indirect costs, relating to the CAS 418 requirements:

- **Pay Ranges:**

  In accordance with CAS 418-50, *Techniques for Application*, 2 (ii)(A) and (B), when using standard labor rates, pay ranges should not be widely dispersed. Our review of LLNL's pay ranges within labor categories indicated that LLNL's pay ranges are not widely dispersed. LLNL's current standard labor rates group employees within the same pay range, regardless of job function (i.e., accountant, engineer, etc.), into "Bands," to minimize standard versus actual labor cost variances. Our review indicated that the LLNL's 2012 Standard Salary ranges were set in July 2011, to facilitate the indirect rate planning process that occurs during the summer, before the beginning of the next Fiscal Year, on October 1. To establish the standard labor rates, a distribution analysis was completed by LLNL and salary ranges were adjusted from the prior year, to minimize the variance by range. The distributed hourly wages were increased by 3 percent for Fiscal Year 2012, based on the projected salary increases/adjustments anticipated.

  We also reviewed LLNL's use of salary "Bands," rather than using a standard job function structure when planning and estimating labor costs. In response, LLNL provided an analysis which demonstrated that 54 percent of the salary rates would vary from the average salary amount by more than 7 percent, if set by job function, whereas, under the "Band" approach, only 3 percent of the salaries vary from the average Band amount by 7 percent or more. Therefore, we considered the "Band" approach to be reasonable.

  We noted no findings as a result of this test work.

- **Homogeneous Costs:**

  Because LLNL does not use its general ledger account structure for accumulating costs in its indirect cost pools (instead, a Project and Task cost structure is used), we selected sample cost centers from various components within the G&A and Site Support (selected pools from above) indirect cost pools, as follows, based on materiality:

  - G&A: Human Resources
  - G&A: Organizational/Personnel Management
  - Site Support: Safety and Health
  - Site Support: Application Support Services

  We determined that these indirect cost pools were homogeneous, considering that all significant activities of the cost pools had the same or similar beneficial or causal relationship to cost objectives.

- **Allocation Bases for Indirect Cost Pools:**

  We determined that LLNL's various allocation bases for indirect cost pools do not include material amounts of costs for the management or supervision of activities involving direct labor or material costs, as governed by CAS 418.50(e), *Allocation Measures for Indirect Cost Pools That do Not Include Material Amounts of the Costs of Management or Supervision of Activities Involving Direct Labor or Direct Material Costs*. We determined that indirect cost pools have a direct and definitive relationship between the activities in the pool and benefiting cost objectives. We also determined that the pooled costs are allocated using an appropriate measure of resource consumption.

- **Indirect Cost Variance Reporting and Liquidation**:

  LLNL manages indirect cost pool variances by reviewing individual cost pool collections against actual costs. LLNL's Budget Department prepares projections of cost pool collections on a monthly basis between October and August, and then weekly in September. Variance projections are monitored by individual indirect pool. These projections are reviewed by the Chief Financial Officer and LLNL Senior Management for use in evaluating the need for a retroactive rate changes, as well as decisions regarding spending or buying down liabilities. LLNL Senior Management takes into account variance thresholds when making decisions affecting indirect costs. During the year, variances exceeding threshold of +/- 5 percent or greater than $10 million, by cost pool, are liquidated by retroactive rate change. At year end, with the exception of Service Centers, year-end variances within +/- 5 percent and less than $10 million, are liquidated back to open final cost objectives, via journal entries, in the same proportion as previously allocated.

  Because Service Centers are charged directly and are then allocated to other indirect cost pools, variances are liquidated across the G&A base.

  Our test work indicated that LLNL's indirect cost variances are disposed at least annually, in line with 418.50(g), *Use of Pre-established Rates for Indirect Costs,* by allocating them to cost objectives in proportion to the costs previously allocated to the cost objectives by use of the pre-established rates.

- **Cost Transfers**

  We reviewed LLNL's policies and procedures for making transfers between direct and indirect cost accounts. This area was previously identified as an issue by LLNL's Internal Audit Department. In a follow-up review (Internal Audit Report No. 12-14, dated March 29, 2012, entitled *Cost Transfer Effectiveness Review*), LLNL's Internal Audit Department reported that management's corrective actions have been partially effective in monitoring the appropriateness of cost and effort transfers, but indicated that improvements were still needed in implementing a secondary review of the transfers and in completing other corrective actions.

  We selected a sample of 25 cost transfers for determining whether transfers between direct and indirect cost objectives were reasonable and in compliance with LLNL's written procedures. We noted no findings as a result of this test work.

  We also reviewed the volume of cost transfers year over year, which indicated that transfers between direct and indirect accounts had increased by 19 percent from 2011 to 2012, although the gross amount of these transfers totaled $2.44 million, the net transfers were $0.46 million, which is only 0.03 percent of LLNL's total Fiscal Year 2012 costs of $1.78 billion, and are not significant with respect to CAS 418 compliance.

- **Uncompensated Overtime**

  LLNL's most recent Internal Audit Report on *Time and Effort Reporting*, dated September 27, 2012, indicated that in its sample of 23 employees, 13 percent were not proportionately allocating their time when working more than their scheduled hours, but that significant improvements had been made from its prior review when it found nearly 53 percent noncompliance in this area. LLNL management agreed with the *Time and Effort Reporting* findings and is implementing corrective actions. For example, LLNL has expanded its time reporting policy to address uncompensated overtime for exempt employees and has reminded employees of the requirement to record their hours on a pro rata allocation of total hours worked.

  We reviewed LLNL's updated policies and procedures for uncompensated overtime, and the associated training program. These corrective actions appear to be responsive to the LLNL Internal Audit findings, and as such, we did not propose additional related recommendations as a result of this audit.

Areas of Special Consideration

Our observations on the areas of potential concern identified by the NNSA are as follows:

- **Practices relating to rate adjustments and the liquidation of interim and year-end indirect rate variances**

  LLNL's policies for liquidation of indirect rate variances are described above.
  LLNL provided us with documentation as supporting evidence of the processes for indirect cost collection, by pool, and overhead variance status reporting and monitoring. Further, we obtained and tested a schedule of the September 30, 2012 year-end indirect rate variance allocation and a liquidation impact report, along with journal entries that showed that the variances exceeding the stated thresholds were allocated in proportion to the original allocations. We noted no findings as a result of this test work.

- **Practices relating to rate adjustments and the liquidation of interim and year end standard direct labor variances**

  The process of establishing standard direct labor rates was discussed above. We reviewed LLNL's direct labor variance reports showing standard labor costs charged versus actual costs for Fiscal Year 2012. LLNL disposes/liquidates these variances annually by allocation to cost objectives in proportion to the costs previously allocated to those cost objectives. We noted no findings as a result of this test work.

- **Overhead special allocation rates applied to NIC and other self-constructed asset projects including the inappropriate use of a reduced fee rate on NIC projects**

  As a result of a review, dated November 8, 2009, by the NNSA Office of Field Financial Management (OFFM) of LLNL SCAP Indirect Rates and Reduced Management Fee, OFFM determined that the SCAP Site Support and G&A Rates (SCAP Rates on NIC projects) were not fully compliant with CAS 418.

  In a memo dated March 30, 2010, the DOE Contracting Officer indicated that LLNL was allowed to use the SCAP rates through the scheduled completion of the NIC, in order to avoid any unnecessary programmatic impact at the end of the project, but should discontinue the use of the SCAP rates effective October 1, 2012.

  Our review of LLNL's 2013 Disclosure Statement indicated that the special overhead allocation rate for NIC was eliminated beginning October 1, 2012 (i.e., Fiscal Year 2013). We confirmed the elimination of NIC by reviewing a sample project ledger, which identified that only G&A and Site Support Rates have been applied in Fiscal Year 2013, and excluded the below rate(s).

  We determined that LLNL removed the NIC Site Support Rate as follows, and in accordance with the revised Disclosure Statement effective October 1, 2012 (Fiscal Year 2013):

- Eliminated the NIC rate from the Site Support Rate, and removed the NIC exclusion from Site Support Base.
- Eliminated the separate NIC G&A Rate, and removed the NIC exclusion from the G&A allocation base.
- Eliminated the NIC Management Fee Rate, and removed the NIC exclusion from the Management Fee allocation base, and
- Removed the NIC exclusion from the R&D allocation base.

- **Allocation base used to distribute site support overhead**

  We determined that this allocation base issue/concern was related to the NIC rate(s) for Fiscal Year 2012 and prior years. As discussed above, LLNL eliminated these special allocation overhead rates beginning October 1, 2012. We noted no findings as a result of this test work.

- **Use of non-homogeneous indirect cost pools**

  We selected the G&A and Site Support indirect cost pools to test for homogeneous costs. Within the G&A pool, we selected Human Resources and Organizational/Personnel Management costs for further testing. From the Site Support pool, we selected Safety and Health and Application Support Services costs for further testing. We determined that cost elements within each selected component of these pools were homogenous costs that benefited the entire organization. We noted no findings as a result of this test work.

CONCLUSION

Based upon the performance audit procedures performed and the results obtained, we have met our audit objective. We conclude that LLNL's policies, procedures, and practices used to estimate, accumulate, and report costs on Government contracts and subcontracts complied with the requirements of CAS 418 considering the revised procedures implemented during Fiscal Year 2012.

IG Report No. OAS-L-13-07

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