WR-B-00-05

AUDIT REPORT

PERFORMANCE INCENTIVES AT THE IDAHO NATIONAL ENGINEERING AND ENVIRONMENTAL LABORATORY

APRIL 2000

U.S. DEPARTMENT OF ENERGY
OFFICE OF INSPECTOR GENERAL
OFFICE OF AUDIT SERVICES

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MEMORANDUM FOR THE MANAGER, IDAHO OPERATIONS OFFICE

FROM: Lawrence R. Ackerly, Western Regional Manager (Signed)
Office of Inspector General

SUBJECT: INFORMATION: Audit Report on "Performance Incentives at the Idaho National Engineering and Environmental Laboratory"

BACKGROUND

In 1994, the Department of Energy (DOE) decided to replace its standard management and operating contract with a new performance-based contract. Such contracts were to include incentives to improve performance and/or reduce costs. The contract awarded by the Idaho Operations Office (Idaho) to Lockheed Martin Idaho Technologies Company (Lockheed) in 1995 for the operation of the Idaho National Engineering and Environmental Laboratory (INEEL) was the first to incorporate performance-based incentives. The objective of our audit was to determine whether performance-based incentives at the INEEL had improved performance and reduced costs.

RESULTS OF AUDIT

Performance-based incentives at the INEEL had not been fully successful in improving performance and reducing costs. We reviewed 13 incentives that focused on performance and/or cost and questioned 8, some for more than one reason. For some incentives, performance declined or was unchanged. For others, performance improved but the improvement was overstated, was compensated twice, could not be directly linked to actions taken by Lockheed during the incentive period, or carried a disproportionately high fee. For still others, Lockheed could not demonstrate any reduction in costs.

Incentives were not fully successful partly due to problems with the way Idaho structured some incentives. For example, Idaho structured one incentive to reward process rather than outcome. There were also problems with the way Idaho validated contractor performance. These problems resulted in the auditors questioning about $11.3 million in incentive fees paid to Lockheed.

We recommended specific improvements to the way Idaho structured its incentives. We also recommended that Idaho improve its processes for validating contractor performance and take prompt action to correct deficiencies identified through validation efforts or independent reviews.

MANAGEMENT REACTION

Management generally concurred with the finding and recommendations. Management stated that its pioneering effort to shift to performance-based contracting had resulted in overall benefits to the taxpayer. Management also stated that the Office of Inspector General's review resulted in suggested improvements that Idaho incorporated into its current contract, which became effective on October 1, 1999. Four of the incentives reviewed were discontinued. Three others were modified. Additionally, management committed to review $2.2 million of fee paid for three incentives to determine if some of this fee may have been paid in error. If errors are discovered, Idaho stated that it would attempt to recoup the fee from Lockheed.

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INTRODUCTION AND OBJECTIVE

At the beginning of Fiscal Year (FY) 1995, the Department of Energy's (DOE) Idaho Operations Office (Idaho) awarded Lockheed Martin Idaho Technologies Company (Lockheed) a five-year management and operating (M&O) contract for the Idaho National Engineering and Environmental Laboratory (INEEL). The Lockheed contract was the first contract in the DOE complex to incorporate performance-based incentives. During the course of the contract, Idaho incentivized several areas, including the Advanced Test Reactor (ATR), the Specific Manufacturing Capability (SMC), safety and health, and liquid waste minimization.

The Lockheed contract expired September 30, 1999, at which time a new contractor, Bechtel BWXT Idaho, LLC assumed the role of M&O contractor for the INEEL. Idaho carried over seven of the incentives from the Lockheed contract. Idaho intends to negotiate more incentives until about one-half of the estimated $36 million available annual fee is in the form of incentive fees.

The General Accounting Office (GAO) recently reported that DOE had not evaluated the impact of performance-based contracting on its laboratory contractors and, as a result, did not know if this new form of contracting was achieving the intended objectives of reducing costs and improving performance. This report, in fact, confirmed findings in several reports published by the Office of Inspector General (OIG). The OIG, for example, determined that contractors were paid fees for work accomplished before incentives were established, for work that was easily accomplished, and for performance that was process-oriented rather than results-oriented. (For a list of reports, see Appendix 3.)

The objective of this audit was to determine whether performance-based incentives at the INEEL had improved performance and reduced costs.

CONCLUSIONS AND OBSERVATIONS

Performance-based incentives at the INEEL had not been fully successful in improving performance and/or reducing costs. We questioned 8 of the 13 incentives employed at the INEEL for one or more of the following reasons:

- performance declined or was unchanged;
- performance improved, but the improvement was overstated, was compensated twice, could not be directly linked to actions taken by Lockheed during the incentive period, or carried a disproportionately high fee; and,
- cost reduction did not occur.

Incentives were not fully successful primarily because of problems with the way Idaho structured incentives--such as structuring an incentive to reward process rather than outcome--and with the way Idaho validated contractor performance. These problems resulted in the auditors questioning about $11.3 million of incentive fees paid to Lockheed.

Further, largely absent from the areas incentivized were the primary INEEL business lines—Environmental Management activities—that accounted for more than 60 percent of Idaho's budget. A July 1997 Headquarters review team noted this in its *Report on the Combined Headquarters/Field Assessment of Incentives Used in Performance-Based Management Contracts at the Idaho Operations Office*. Idaho officials stated that they planned to develop incentives for Environmental Management activities with the new contractor beginning in 2000.

In our opinion, the matters discussed in this report represent material internal control weaknesses within DOE that should be considered when preparing the yearend assurance memorandum on internal controls.

(Signed)
Office of Inspector General

INCENTIVES NOT FULLY SUCCESSFUL

Incentives Had Not Always Improved Performance And/Or Reduced Costs

We questioned 8 of the 13 incentives reviewed. Some were questioned because performance did not improve. For instance, safety and health problems increased in most INEEL operating areas even though the Safety and Health Cost Index (SHCI) Incentive and the Voluntary Protection Program (VPP) Incentive were established to enhance safety and health. Based on an index maintained by Lockheed, safety and health problems for the incentivized years of 1995-1998 were 20 percent higher than for the three years prior to incentivization. Thus, these incentives did not achieve their intended purpose. In another instance, the SMC Production Incentive was established in part to enhance production activities. Production, however, was not enhanced because the customer sought only a minimal level of production both before and after the incentive was established. Therefore, it was inappropriate to incentivize production activity.

In other cases where performance improved, we determined that improvement was overstated, was compensated twice, could not be directly linked to actions taken by Lockheed during the incentive period, or carried a disproportionately high fee. For instance, under the SMC New Business Incentive, Lockheed included work done on other Lockheed projects at the INEEL as new business. We also found that two ATR incentives duplicated one another in terms of intended outcome and thus the contractor was compensated twice for achieving the same result. In another case, evaluation of the contractor's performance under the Liquid Waste Minimization Incentive showed that part of the claimed waste reduction from the baseline occurred due to actions taken prior to the incentive period. For the remaining claimed waste reduction, neither Lockheed nor Idaho could explain it in terms of actions either had taken. When we reviewed the baseline from which waste reduction was measured, we found it to be poorly defined and inadeqate for measuring performance. Finally, the SMC Safety and Health Cost Index Incentive carried a disproportionately high fee when the labor hours covered by it were compared to the labor hours covered by the SHCI Incentive.

For the SHCI and VPP incentives, Lockheed could not demonstrate any reduction in the costs of promoting safety and health. Lockheed did not accumulate these costs and therefore they were unknown.

Goal Of Incentives Is To Improve Performance And Reduce Costs

The importance of using incentives to enhance performance and reduce costs is discussed in the February 1994 report, *Making Contracting Work Better and Cost Less*. In the report, DOE's Contract Reform Team recommended that DOE replace its standard M&O contract with a new performance-based contract that would include "appropriate incentives for contractors to meet and exceed the performance criteria effectively and efficiently." In addition, the Federal Acquisition Regulation requires that a cost incentive or cost constraint be included whenever a performance incentive exists. Thus, incentives included in the INEEL contract should have improved performance and/or reduced costs.

Problems With Incentive Structure And Performance Validation

Incentives had not always improved performance and reduced costs at the INEEL primarily because of problems with the way Idaho structured individual incentives and/or validated performance. Some of these problems follow.

<u>Process rewarded rather than outcome</u>. The VPP Incentive rewarded Lockheed for establishing processes, methods, and training programs, rather than the outcome of improved safety and health. Thus, the contractor could meet the incentive and earn a significant amount of fee—most of the $16 million fee available under three safety and health incentives was tied to the VPP Incentive—even if safety and health did not improve or deteriorated. Although this problem was previously identified in a July 1997 Headquarters review, Idaho disagreed with the finding and took no corrective action.

<u>Poorly defined baseline</u>. The baseline for the Liquid Waste Minimization Incentive lacked controls. There was no system in place to track and report on modifications to processes and equipment that generated liquid waste, when the modifications were made, and how much of a decrease in liquid waste could be expected. Without such a system, Idaho could not establish a valid baseline for measuring performance.

<u>Inadequate validation of performance</u>. Idaho validated Lockheed's performance under the ATR Operating Efficiency Incentive using a baseline other than the one stipulated in the performance measure. In another example, Idaho paid VPP Incentive fee even though Idaho's safety expert on the validation team found Lockheed's performance to be insufficient to warrant a fee payment.

No cost reduction targets or spending limits. The SHCI and VPP incentives lacked any spending limits or targets for reducing the costs of promoting safety and health. The incentives merely included the phrase "to cost effectively operate."

In addition, the performance expectation for the Liquid Waste Minimization Incentive was lowered without DOE Headquarters approval and established late into the performance period. The incentive approved by Headquarters set the performance expectation as a 35 percent or greater reduction in waste from the baseline. Later, without obtaining the required Headquarters approval for a significant change to an incentive, Idaho lowered the performance expectation to a 10 percent reduction in waste. Further, the incentive was not signed by Idaho and the contractor until more than 7 months of the performance period had elapsed, which called into question the objectivity of the incentive.

Contract Reform Goals Not Achieved

As demonstrated in this report, improving performance and reducing costs can be difficult goals to achieve when incentives are not properly structured and performance is not correctly validated. The performance improvements that management might have achieved with incentives were not always attained. In addition, management incurred the risk that the contractor would spend indiscriminately to improve performance and earn fee where incentives lacked spending limits or cost reduction targets. The auditors questioned about $11.3 million of fee paid to Lockheed (see Appendix 2). If Idaho does not find better ways to structure incentives and validate performance, it may continue to experience problems with performance, pay excessive fees, and risk incurring excessive costs.

RECOMMENDATIONS

We recommend that the Manager, Idaho Operations Office:

1. maximize the opportunities for improving performance and reducing costs by including in Idaho's performance-based contracts incentives that (a) are outcome- rather than process-oriented, (b) incentivize areas where high levels of performance are desired, (c) have reliable baselines, (d) are not duplicative, and (e) include cost constraints;

2. improve Idaho's performance validation processes so that the contractor is paid incentive fee for only actual, verifiable performance; and,

3. take prompt action to correct deficiencies identified through validation efforts or independent reviews.

MANAGEMENT REACTION

Management generally concurred with the finding and recommendations. While acknowledging that the OIG review resulted in suggested improvements, management believed that its pioneering effort to shift to performance-based contracting resulted in overall benefits to the Government and the taxpayer.

In response to Recommendation 1, management stated that the current contract includes 11 requirements that must be met in order for an area to be considered for performance-based incentives, including the five elements identified in the recommendation. If an area does not include all 11 elements, the area will be evaluated using the award fee process. Certain activities that are very quantifiable and measurable but lack one or more elements of an incentive will be placed in the category of "objective award fee" measures. Other less measurable items will be categorized as "subjective award fee." Idaho envisions that the majority of the contractor's performance will be evaluated using either incentive or objective award fee criteria.

Management also stated that a fee scoring methodology has been developed for the new M&O contractor. The methodology defines the performance expectations, the method for assessing results, and the allocation of fee into performance areas. The fee will be allocated in three different manners within each performance area—performance-based incentives, objective award fee, and subjective award fee.

Responding to Recommendation 2, Idaho stated that it is developing and implementing a balanced-scorecard performance measurement system. This system will focus on five critical and interrelated outcomes for the INEEL. Objectives are being developed for each critical outcome. Measures will then be identified which will serve as the basis for evaluating the contractor's performance. This action will be complete by April 1, 2000.

Regarding Recommendation 3, Idaho stated that the OIG review has resulted in suggested improvements that Idaho has incorporated into its current contract, which became effective on October 1, 1999. Four incentives have been canceled (specifically, the VPP, the SHCI, the SMC Safety and Health Cost Index, and the SMC New Business incentives).

Management is convinced, however, that the ATR, the SMC Production, and the Liquid Waste Minimization incentives should be retained albeit with reduced fee and clearer performance objectives. Management cited operational performance improvements, outage reductions, and safety level maintenance as reasons for keeping the ATR incentivized. It was Idaho's position that the SMC Production Incentive should be continued because it is based on a history of reliable information, had clear performance measures, meets Congress's mandate to maintain the Department of Defense industrial base at the lowest possible cost, and emphasizes safety as a high priority. Idaho stated that in order for the incentive to be successful, a balance of three elements (production, performance, and cost reduction) needs to be accomplished. As justification for keeping the Liquid Waste Minimization Incentive, Idaho stated that the incentive had motivated the contractor to significantly reduce liquid waste, had made it easier to achieve goals outlined in court-enforceable documents, and would provide long-term benefits to the taxpayer.

Finally, management believed that the Government received benefits for the fee questioned by the OIG. However, management committed to review $2.2 million of questioned fee paid for the Liquid Waste Minimization Incentive; the SHCI Incentive; and the SMC New Business Incentive, to determine if some of this fee may have been paid in error. If errors are discovered, Idaho will attempt to recoup the fee from the former contractor.

AUDITOR COMMENTS

Management's comments are responsive to our recommendations. However, the ATR Unplanned Outages Incentive, the SMC Production Incentive, and the Liquid Waste Minimization Incentive still have problems that need to be addressed.

The major performance variable that affects both ATR incentives is unplanned outages. That is, an unplanned outage decreases the ATR's operating efficiency. The ATR Operating Efficiency Incentive and the ATR Unplanned Outages Incentive, therefore, duplicate each other with respect to outcome. This concern was also voiced by a DOE Headquarters team that reviewed the INEEL's incentives in 1997.

While the SMC Production Incentive has reduced costs it does not encourage superior performance in production because there is no need to improve production. Specifically, SMC production has been operating on a minimum production schedule simply to "maintain capability" since 1994. One of the fundamental concepts of contract reform is that incentives challenge the contractor to produce superior results and, if achieved, reward the contractor. With this incentive, the contractor is virtually guaranteed to earn the entire incentive fee associated with the production component of the incentive because the production schedule is not challenging. In fact, this occurred during 1996 through 1998 when Lockheed was paid 100 percent of the available $4 million fee for the production component of the incentive.

We agree that there is a need to reduce liquid waste and are encouraged that management has committed to look into performance measurement weaknesses disclosed by the audit. However, management must dramatically improve the internal controls (baseline controls and validation procedures) if the Liquid Waste Minimization Incentive is to succeed.

Appendix 1

SCOPE

The audit was performed from April 27, 1999 to December 22, 1999, at Idaho and Lockheed offices in Idaho Falls, Idaho, and at the INEEL. We limited the scope to the 13 incentives that were in place at the end of FY 1998.

To accomplish the audit objective, we:

METHODOLOGY

- reviewed applicable Federal and DOE regulations;
- reviewed prior OIG, GAO, and DOE Headquarters reviews;
- examined performance incentive fees as incorporated by the Lockheed contract;
- reviewed and validated selected performance data;
- assessed compliance with certain provisions of the Government Performance and Results Act of 1993; and,
- interviewed Idaho and Lockheed personnel.

The audit was performed 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 audit objective. We tested controls with respect to Idaho's implementation of performance incentives in the Lockheed contract. 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 did not conduct a reliability assessment of computer-processed data because only a limited amount of such data was used during the audit.

We held an exit conference with the Acting Chief Financial Officer, Idaho Operations Office, on February 28, 2000.

Appendix 2

SUMMARY OF QUESTIONED FEE

1.	All fee paid under the SMC Production Incentive because there was no need to incentivize a low level of production that Lockheed had met for several years.	$4,000,000
2.	All fee paid under the VPP Incentive because safety and health problems increased, rather than decreased, and the incentive was structured to reward process rather than outcome.	2,250,000
3.	All 1998 fee paid under the Liquid Waste Minimization Incentive because the waste reduction performance claimed could not be directly linked to actions taken by Lockheed.	2,000,000
4.	All fee paid under the ATR Unplanned Outages Incentive because the incentive duplicated the ATR Operating Efficiency Incentive in terms of outcome.	1,480,000
5.	Fee paid under the ATR Operating Efficiency Incentive because performance improvement was overstated (that is, performance was measured against the wrong test plan, efficiency was built into the measurement formula, and 1995 efficiency was erroneously calculated).	820,000
6.	Fee paid under the SMC Safety and Health Cost Index Incentive that was disproportionately large compared to the SHCI Incentive.	600,000
7.	Fee paid under the SHCI Incentive because performance was overstated (that is, the index was not adjusted to compensate for a change in Lockheed's work schedule).	108,000
8.	Fee paid under the SMC New Business Incentive for work done on other Lockheed projects at the INEEL.	63,000
	Total Questioned Fees	$11,321,000

Appendix 3

RELATED OFFICE OF INSPECTOR GENERAL AND GENERAL ACCOUNTING OFFICE REVIEWS

This review concerned DOE's contract reform in the area of performance-based incentives. Prior OIG and GAO reviews related to this area include those listed below.

- *National Laboratories: DOE Needs to Assess the Impact of Using Performance-Based Contracts*, GAO/RCED-99-141, May 7, 1999

  DOE had not evaluated the impact of performance-based contracting on its laboratory contractors and, as a result, did not know if this new form of contracting was achieving the intended objectives of reducing costs and improving performance.

- *The Fiscal Year 1996 Performance Based Incentive Program at the Savannah River Operations Office,* INS-O-98-03, May 1998

  The Savannah River Operations Office had incentives that were not clearly stated and paid excessive fees.

- *Audit of the Contractor Incentive Program at the Nevada Operations Office*, DOE/IG-0412, October 1997

  The Nevada Operations Office performance incentives were vague, could not be objectively validated, and were implemented after the performance period had been completed.

- *Audit of the Contractor Incentive Program at the Rocky Flats Environmental Technology Site*, DOE/IG-0411, August 1997

  DOE's performance incentives at the Rocky Flats Environmental Technology Site did not always include clearly defined criteria, were not structured to encourage and reward superior performance, and were often process-oriented rather than results-oriented.

- *Inspection of Performance Based Incentive Program at the Richland Operations Office*, DOE/IG-0401, March 1997

  The DOE Richland Operations Office paid excessive incentive fees; paid fees for work that was accomplished prior to the establishment of the incentive program; paid fee for work that was easily achieved by the contractor; and paid fee in an instance where quality and safety were compromised by the contractor in order to achieve an incentive fee.

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