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Report to the Chairman, Committee on Commerce, House of Representatives

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DEPARTMENT OF ENERGY

Lessons Learned Incorporated Into Performance-Based Incentive Contracts

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GAO

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Resources, Community, and
Economic Development Division

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July 29, 1998

The Honorable Thomas J. Bliley, Jr.
Chairman, Committee on Commerce
House of Representatives

Dear Mr. Chairman:

As part of its initiative to reform its management of its contract operations, in 1994 the Department of Energy (DOE) began using performance-based incentives in contracts for the management and operation of its facilities. These incentives are intended to better link contractors' fees to the satisfactory accomplishment of specific tasks. However, DOE's Office of Inspector General (OIG) has identified problems with the Department's implementation of performance-based contracting at several facilities. In addition, DOE's October 1997 departmentwide assessment of performance-based incentives in contracting identified other problems and recommended specific corrective actions. The assessment also cited examples of successful results from the use of performance-based incentives.

You requested that we review performance-based incentives at DOE's Hanford, Idaho Falls, Rocky Flats, and Savannah River sites to determine (1) the extent to which DOE has incorporated lessons learned in developing its fiscal year 1998 performance-based incentives; (2) whether these incentives incorporate the baseline measures in DOE's 10-year plan for environmental cleanup, and how fees are allocated to the incentives; and (3) how DOE evaluates completed incentive measures and determines their effectiveness.

Results in Brief

During the past year, DOE has taken steps to correct the problems identified in the OIG reports and its own assessment of performance-based incentives. These steps have included issuing guidance, conducting training, and incorporating lessons learned into the fiscal year 1998 incentives. However, DOE believes that fiscal year 1998 represents a transitional period to better performance-based incentives because it plans to continue to make improvements to the incentives.

For fiscal year 1998, at three of the four sites we visited, DOE's performance-based incentives incorporated the baseline measures in the Department's 10-year plan for environmental cleanup and were generally linked to both DOE's strategic plan and the site-specific plans. The fourth site, Idaho Falls, has not yet developed performance incentives in environmental management, but its goals and objectives do incorporate the 10-year plan's baseline measures. Furthermore, each of the four sites generally allocates fees to individual performance incentives in proportion to their relative importance and on the basis of the site's missions and objectives.

DOE evaluates completed actions that were tied to performance-based incentives through reviews by its technical, financial, and contracting personnel to determine whether the contractor satisfied the criteria and earned the amount of fee to be paid. Overall, DOE maintains that performance-based incentives have been effective in achieving desired end results. However, it is not clear whether the successes reported in the departmentwide assessment have been due to the performance-based incentives or to the accompanying increased emphasis on program management. Furthermore, it is too soon to assess the effectiveness of the fiscal year 1998 incentives because the evaluation of these incentives will not be complete until the end of the fiscal year.

Background

To carry out its missions, DOE relies on contractors for the management and operation of its facilities. These efforts are normally carried out using cost-reimbursement contracts, which provide for the payment of all costs incurred by the contractor to the extent that these costs are allowable under the specific contract provisions. In addition, DOE's regulations provide for a fee, or profit, on these contracts. The amount of fee available to the contractor is based on the contract amount and the type of work to be performed and may be allocated among base, award, and/or incentive fees. (App. I provides information on the allocation of fees and total contract amounts for the four sites included in our review.)

DOE began using performance-based incentives in fiscal year 1994 in response to one of the recommendations in its February 1994 report on contract reform.[1] In order to implement this recommendation quickly, DOE directed the sites to develop performance-based incentives before it developed key policies and procedures. By fiscal year 1996, most sites had incorporated these incentives into their contracts. However, it was not until May 1997 that DOE provided revised draft guidelines for performance-based incentives.

[1] Making Contracting Work Better and Cost Less: Report of the Contract Reform Team (DOE/S-0107, Feb. 1994).

A key to implementing performance-based contracting is having a clear picture of what needs to be accomplished. DOE has laid out its program goals in several documents. DOE defined its mission and program goals and the Department's plans for achieving those goals in its first strategic plan, issued in 1994; and, in September 1997, in response to the Government Performance and Results Act of 1993, DOE issued a revised strategic plan. DOE's Environmental Management Program also began developing its own strategic plan, entitled Accelerating Cleanup: Paths to Closure (formerly called the 10-year plan), by incorporating each site's projections for the scope, cost, and schedule of cleanup.

During 1997 and 1998, the OIG reported on problems with the performance-based incentives for fiscal years 1995 and 1996 at four sites, including Hanford, Rocky Flats, and Savannah River.[2] For example, the OIG reported in March 1997, that at Hanford some performance-based incentive fees were paid for work that had been completed before the incentives had been agreed upon and that in one instance safety was compromised by the contractor in order to earn a fee. In addition, DOE reported during 1997 on its assessment of the implementation of performance-based incentives.[3] While this report identified benefits from using performance-based incentive contracts, it also raised a number of concerns. For example, the report indicated that formal guidance for developing and administering performance-based incentives was limited and did not establish criteria for measuring performance or allocating fees to incentives.

DOE Has Taken Corrective Action by Incorporating Lessons Learned

Recent changes to DOE's performance-based contracting have generally incorporated the lessons learned from the OIG's reviews and the Department's own assessments of performance-based incentives. DOE has issued departmentwide guidance, developed performance-based incentive training, and shared information through workshops and reports on lessons learned. In addition, DOE's field offices have formalized procedures for the development and administration of incentives and used those procedures, as well as experiences from prior years, to develop the fiscal

[2]Inspection of the Performance Based Incentive Program at the Richland Operations Office (DOE/IG-0401, Mar. 10, 1997); Audit of the Contractor Incentive Programs at the Rocky Flats Environmental Technology Site (DOE/IG-0411, Aug. 13, 1997); and Inspection of the Fiscal Year 1996 Performance Based Incentive Program at the Savannah River Operations Office (DOE-INS-O-98-03, May 1998).

[3]Assessment of the Use of Performance-Based Incentives in Performance-Based Management and Management and Integration Contracts (Oct. 1997).

year 1998 incentives. Although these are steps in the right direction, DOE acknowledges that it still has room for improvement.

DOE Has Incorporated Lessons Learned Into Fiscal Year 1998 Incentives

In developing its fiscal year 1998 incentives, DOE incorporated the lessons learned from the OIG's reviews, its own assessment, and prior years' experiences with performance-based incentives. These lessons included developing fewer and more specific performance-based incentives that were results-oriented, defining key terms in the performance criteria, and ensuring that all key personnel participate in the development of the incentives.

DOE's October 1997 report assessing its implementation of its performance-based incentives noted that using too many incentives made it difficult to focus the contractors' efforts on key results and created an administrative burden. In response, DOE reduced the overall number of incentives in fiscal year 1998; three of the four sites we visited had fewer incentives. The largest reduction was at Hanford, which went from over 200 incentives in fiscal year 1997 to about 100 for fiscal year 1998. Savannah River and Rocky Flats also reduced the number of incentives in an effort to focus on a few critical measures. The number of incentives for the management and operating contract at the Idaho Falls site has remained at 11 since fiscal year 1995.

Furthermore, the incentives that are in place are more results-oriented and better define key terms. For example, at Savannah River, one of the fiscal year 1996 incentives was to "optimize the production" of canisters containing immobilized high-level waste by offering an incentive for each filled canister, starting with the fifty-sixth canister, but the incentive did not include criteria for what constituted an acceptably filled canister or specify the desired number of canisters to be filled. In contrast, the fiscal year 1998 incentive not only requires that at least 150 canisters be filled with processed waste and defines the criteria for an acceptably filled canister (with a minimum level of 96 inches) but also includes a provision to reduce the overall fee available to the contractor if the contractor fills fewer than 100 canisters.

Finally, the incentives that are included have been agreed to by key DOE personnel. This is in contrast to how incentives were developed by DOE when it first introduced them. At that time, the incentives were generally developed by DOE's technical personnel working with their contractor counterparts. According to DOE's assessment of these earlier efforts, the resulting incentives were narrowly focused and did not necessarily contribute to achieving DOE's goals for the site. To address this concern, the four sites we visited used an interdisciplinary team of technical, financial, and contracting personnel to develop their fiscal year 1998 incentives. So that these proposed incentives would be considered in the context of each site's activities, they were reviewed and approved by DOE's senior management at the sites. Furthermore, any proposed changes to individual incentives must go through a formal review process and be approved by senior management at the sites.

DOE Has Taken Corrective Action to Improve the Performance-Based Incentive Process

DOE's October 1997 assessment of its performance-based incentives also noted that the guidance on the development and administration of these incentives was limited and generally did not address such issues as establishing baselines and allocating fee amounts to specific incentives. In response, DOE has taken steps to strengthen departmentwide guidance and training for the development and administration of these incentives. In addition, the four sites we visited have issued site-specific guidance concerning the development, administration, and evaluation of performance-based incentives.

Although one of DOE's program areas—Environmental Management—issued draft guidelines on performance-based incentives in May 1997, departmentwide guidance was not issued until December 1997. The December 1997 guidance stressed the importance of results-oriented performance expectations that can be measured by objective criteria. It also recommended that each field office institute a structured process to develop performance-based incentives and to identify ways to ensure the adequate monitoring and verification of a contractor's performance in light of these incentives. Furthermore, DOE created an interdisciplinary training course that provides an overview on developing performance-based incentives and presented the training to headquarters and field office personnel. In addition, DOE plans, by the end of 1998, to develop a more detailed course on writing individual performance-based incentives.

DOE has held two workshops for field office personnel to share their experiences with performance-based incentives and to identify both efforts that have worked well and areas for further improvement. In March 1998, DOE issued a lessons learned document for performance-based incentives to better disseminate this information, and it plans to continue this practice semiannually.

In addition to the corrective action taken by DOE headquarters, the four sites we visited have formalized their procedures for developing and administering performance-based incentives and have improved the quality of the supporting documentation. For example, the Hanford directive issued in September 1997 requires that each incentive, among other things, defines quantifiable performance criteria in terms of cost, schedule, and technical baselines. At Rocky Flats, supporting documentation for each individual performance measure for fiscal year 1998 has a justification and development record that explains the rationale for selecting the activity for an incentive and for assigning the specific amount of fee.

DOE Acknowledges That Further Improvements Are Needed

Although DOE has taken corrective action and incorporated lessons learned in the fiscal year 1998 incentives, DOE's Deputy Assistant Secretary for Procurement and Assistance Management acknowledges that there is room for further improvements in both the process for developing the incentives and in the individual incentives themselves. As we discussed in April 1998,[4] one of these areas is the timeliness of the performance-based incentives. For fiscal year 1998, the performance incentives at some of the sites were not approved until several months after the fiscal year had begun. DOE's fiscal year 1999 goal is to have the incentives approved and in place by the beginning of the fiscal year.

DOE's Fiscal Year 1998 Incentives and Associated Fees Are Generally Linked to Site Objectives

For fiscal year 1998, the linkage between DOE's strategic plan and the performance-based incentives has improved over that of prior years at the sites we visited. Furthermore, all four sites allocated fees to individual performance incentives on the basis of their relative importance and their contribution towards the site's mission and objectives.

Fiscal Year 1998 Incentives Reflect Linkage to DOE's Objectives

For fiscal year 1998, the linkage among DOE's strategic plan, site-specific long-term and annual work plans, and performance-based incentives has improved over that of prior years. This linkage is important to ensure that incentives contribute towards achieving the goals and objectives of each site. However, as we reported in April 1998, this linkage has not always existed at DOE's sites. At three of the four sites we visited, DOE's performance incentives incorporated the baseline measures in DOE's

[4] Results Act: DOE Can Improve Linkages Among Plans and Between Resources and Performance (GAO/RCED-98-94, Apr. 14, 1998).

10-year plans for environmental cleanup. The fourth site has not yet developed any incentives in environmental management because it is still validating the baseline information.

For fiscal year 1998, DOE has focused on improving the linkage of its performance-based incentives with the Department's goals. For example, Hanford developed its integrated performance measurement system to ensure that linkage exists between an individual performance incentive and DOE's strategic plan. At Hanford, one of the fiscal year 1998 incentives is for the task of deactivating the waste handling facility; this incentive supports the accomplishment of DOE's strategic goal to reduce operating costs by completing the deactivation of surplus nuclear facilities.

The Idaho Falls site has yet to develop any performance incentives for environmental management and therefore its performance incentives do not incorporate the 10-year plan's measures for cleanup. However, Idaho Falls has a process to link its annual work plans to the 10-year plan and DOE's strategic plan, and the goals and objectives of the site do incorporate the performance measures from the 10-year plan for environmental cleanup. According to officials at the site, as soon as they have validated the baseline information for the environmental management program, they will develop performance-based incentives for that area. Although there are currently no incentives for this area, which represents 60 percent of the funding at the site, the plan for evaluating the contractor's performance includes specific objective criteria to determine award fees.

Allocation of Fees for Fiscal Year 1998 Generally Based on Relative Importance of Activities

Prior to fiscal year 1998, DOE did not assign fee amounts to individual performance-based incentives on the basis of their relative contribution to a site's overall goals and mission. Instead, fees were generally allocated to incentives on the basis of the funding levels for the projects. However, for fiscal year 1998, DOE emphasized allocating fee amounts to incentives on the basis of such criteria as the relative importance of the activity to accomplishing the site's goals and missions.

Our review of the fiscal year 1998 incentives showed improvement in this area. For example, for the project to clean up spent nuclear fuel at Hanford, for fiscal year 1997, all of the fee amounts assigned to individual incentives were the same, or 1 percent of the total fee pool. However, for fiscal year 1998, the fee amounts assigned to incentives ranged from 0.25 percent to 6 percent, with the 6 percent assigned to the incentive for actually removing the spent nuclear fuel and lesser percentages to such steps as completing the “sludge pretreatment process selection.”

While DOE allocates fee amounts to individual performance incentives to focus the contractor’s efforts on a few critical measures, not all of the total available fee is allocated to incentives. A portion of the total fee is used to ensure that the contractor does not neglect the overall operation of the site while focusing on a few critical measures to earn incentive fees. In addition, the contracts for the operation of the sites include a conditional fee payment clause that requires the contractor to meet environmental, safety, and health standards in order to earn any incentive fee. Furthermore, the individual performance-based incentives for fiscal year 1998 at the four sites include a requirement that the work must be completed within specified cost and schedule variances in order to earn the incentive fee for the activity.

For fiscal year 1998, several sites have also initiated new fee provisions to enhance contractors’ performance. One of these initiatives, at Hanford, Rocky Flats, and Savannah River, incorporated provisions in the fiscal year 1998 incentives to reduce the overall fee if specific performance measures are not accomplished. For example, at the Hanford Site, under these provisions, if an activity is not successfully completed in a timely manner, the contractor will not only earn little or no fee for that activity, but the total fee available to the contractor may be reduced. Another initiative, at Rocky Flats, involves the use of “gateway” provisions that require the contractor to complete the prior year’s work for a specific incentive before earning any fee for the current year’s efforts. For example, if the contractor was to remove 100 barrels of waste in fiscal year 1997 and completed only 50, the remaining 50 barrels would have to be removed in fiscal year 1998 before the contractor would be eligible to earn any fee for the 1998 work. In addition, Rocky Flats, Savannah River, and Hanford have begun using “stretch” provisions, under which the contractor can earn more fee if it is able to accomplish additional work with the same level of funding during the year.

The Effect of Incentives on Contractors’ Performance Is Not Clear

In October 1997, DOE reported that the use of performance-based incentives “has served the Department well in focusing contractor work efforts on results.” DOE stated that the application of performance-based incentive contracting had a positive impact on DOE’s ability to meet its mission needs and cited several specific examples of successful results. However, DOE and contractor officials stated that these successes may be due to the Department’s increased emphasis on program management rather than the result of performance-based incentives. In addition, DOE's Deputy Assistant Secretary for Procurement and Assistance Management stated that the most positive impact of the performance-based incentives is the need they create for DOE to focus on results and define the tasks it wants to accomplish.

DOE has taken corrective action and incorporated lessons learned in its fiscal year 1998 performance incentives. However, until all these incentives are evaluated at the end of the fiscal year, the impact of these changes is unknown. To determine if a task has been completed successfully, a DOE interdisciplinary team evaluates the individual performance incentive to learn whether the contractor met the criteria specified in the incentive and whether the work was done within acceptable cost variances.

Agency Comments

We sent a draft of this report to the Department of Energy for its review and comment. The Department's only comment related to our presentation of the fees included in appendix I. According to the Department, the fees available to and earned by its major subcontractors at the Rocky Flats Site are negotiated separately from the prime contractor and therefore should not be included in the table. We included these fees because at the Hanford and Savannah River sites, the fees shown included the amounts available to the prime contractor, who shares the fees earned with the major subcontractors. Because the total contract amount for the Rocky Flats Site includes the amounts paid to the major subcontractors, we believe that it does not make any difference in the presentation of the information to show that the fees are separately negotiated. Therefore, for consistency of presentation, we have retained these fees in our table.

Scope and Methodology

To determine the extent to which DOE has incorporated lessons learned in developing the fiscal year 1998 performance-based incentives, we interviewed DOE's Deputy Assistant Secretary for Procurement and Assistance Management and officials from planning and procurement organizations at DOE's Hanford, Idaho Falls, Rocky Flats, and Savannah River sites. We also reviewed the procedures and other documentation provided by these officials. We also reviewed OIG reports on the performance-based incentives at the Hanford, Rocky Flats, and Savannah River sites and DOE's assessments of contract reform and performance-based incentives. To determine whether the proposed corrective actions had been implemented, we reviewed the fiscal year 1998 incentives developed at the four sites and compared them with prior years' incentives.

To determine whether the incentives incorporate DOE's baseline measures in its 10-year plan for environmental cleanup and how fees are allocated to the incentives, we interviewed DOE's planning and procurement personnel at the four sites. We also reviewed DOE's September 1997 strategic plan, the site strategic and management plans, including the plans known as Accelerating Cleanup: Paths to Closure plans (formerly called the 10-year plans) at the four sites. We reviewed documentation provided by DOE to demonstrate the linkage among these various levels of planning documents. To determine how fees are allocated among incentives, we interviewed DOE personnel, reviewed procedures, and reviewed the individual performance incentives and supporting documentation.

To determine how DOE evaluates completed incentive measures and determines their effectiveness, we interviewed DOE personnel at the four sites, reviewed procedures and other documentation provided by them, and reviewed supporting documentation for completed incentive measures. In addition, we interviewed DOE's Deputy Assistant Secretary for Procurement and Assistance Management.

We performed our review from November 1997 through July 1998 in accordance with generally accepted government auditing standards.

As arranged with your office, unless you publicly announce its contents earlier, we plan no further distribution of this report until 7 days after the date of this letter. At that time, we will send copies to the Secretary of Energy. We will also make copies available to others on request.

Please call me at (202) 512-7106 if you or your staff have any further questions. Major contributors to this report were Jeffrey E. Heil, Carole J. Blackwell, and Charles A. Sylvis.

Sincerely yours,

Susan D. Kladiva
Associate Director, Energy, Resources,
and Science Issues

Allocation of Fees

The Department of Energy calculates the total available fee for each contract on the basis of the total contract amount and the type of work to be performed. This total available fee is then allocated to a base fee amount, if any, and a performance fee amount. The base fee represents a portion of the contractor's profit and is paid regardless of the contractor's performance level. The remaining fee is earned on the basis of the contractor's performance and may be divided into two parts: the award fee, which covers overall site operations, and the incentive fee, which covers specific activities. Table I.1 shows how these fees were allocated and earned for the four sites; amounts may not be comparable because of the scope of work and contractual arrangements at each site. The performance for fiscal year 1998 has yet to be evaluated, so earned amounts are unknown.

Table 1: Allocation and Payment of Fees at Four Sites, Fiscal Years 1996-98

Dollars in millions

Site/fiscal year	Base fee	Award fee available	Award fee earned	Incentive fee available	Incentive fee earned	Total fee earned	Total contract amount
Hanford							
1996	$ 8.0	$5.1	$2.6	$25.5	$19.4	$30.0	$1,166.5
1997	[a]	[a]	[a]	54.0	29.9	29.9	1,047.8
1998	[a]	[a]	[a]	50.0			968.0
Idaho Falls							
1996	[a]	35.7	18.4	12.5	10.3	28.7	675.5
1997	[a]	31.7	14.5	11.9	5.5	20.0	594.7
1998	[a]	30.2		11.1			570.6
Rocky Flats							
1996	8.5	[a]	[a]	39.2	28.6	37.1	529.6
1997	7.8	[a]	[a]	53.5	43.0	50.8	521.8
1998	3.6	[a]	[a]	68.3			609.2
Savannah River							
1996	[a]	27.5	20.4	31.7	20.0	40.4	1,491.6
1997	[a]	26.7	24.3	34.8	27.3	51.6	1,289.0
1998	[a]	42.7		18.8			1,261.6

[a]These fees were not part of this site's contracts.

Source: GAO's analysis of DOE's data.

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