

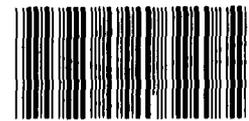
GAO

Report to the Chairman, Subcommittee on Oversight and Investigations, Committee on Energy and Commerce, House of Representatives

March 1987

ENERGY MANAGEMENT

Problems With Martin Marietta Energy Systems' Affiliate Relationships



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**United States
General Accounting Office
Washington, D.C. 20548**

**Resources, Community, and
Economic Development Division**

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March 5, 1987

The Honorable John D. Dingell
Chairman, Subcommittee on Oversight
and Investigations
Committee on Energy and Commerce
House of Representatives

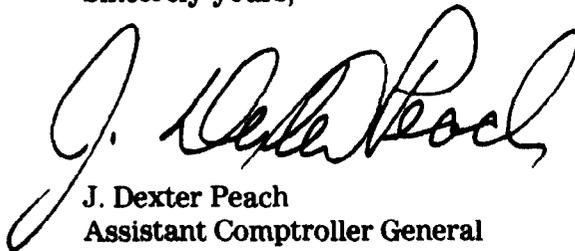
Dear Mr. Chairman:

In response to your January 6, 1986, request, this report discusses two issues relating to the Department of Energy's (DOE's) operating contractor—Martin Marietta Energy Systems—at the Oak Ridge National Laboratory. The issues are (1) whether Energy Systems' relationship with an affiliate known as the Tennessee Innovation Center involved a conflict of interest and (2) whether Energy Systems' use of a procedure to acquire personal services from its parent company is adequately controlled.

As arranged with your office, unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days from the date of this letter. At that time, we will send copies to the Secretary, Department of Energy, and other interested parties.

The work was performed under the direction of James Duffus III, Associate Director. Other major contributors are listed in appendix I.

Sincerely yours,



J. Dexter Peach
Assistant Comptroller General

Executive Summary

Purpose

The Department of Energy (DOE) has contracted with Martin Marietta Energy Systems, a subsidiary of Martin Marietta Corporation, to operate the Oak Ridge National Laboratory. Concerns have arisen over whether Energy Systems' actions involving an affiliate, the Tennessee Innovation Center, in the transfer of a laboratory-developed technology to the private sector were consistent with DOE's conflict-of-interest requirements. Also, there is concern as to whether Energy Systems' procedure for acquiring personal services from Martin Marietta Corporation is adequately controlled.

The Chairman of the Subcommittee on Oversight and Investigations, House Committee on Energy and Commerce, requested that we examine these two issues.

Background

Martin Marietta Corporation established Energy Systems solely to operate the Oak Ridge National Laboratory and three other DOE facilities. Martin Marietta Corporation also owns the Tennessee Innovation Center, a for-profit venture capital company whose purpose is to commercialize technologies, including technology developed at the DOE facilities Energy Systems operates. Energy Systems and the Innovation Center are considered affiliates under DOE regulations because Martin Marietta Corporation controls both of them.

Energy Systems normally obtains goods and services from outside sources through a DOE-approved procurement process which incorporates controls of DOE's acquisition regulations. Energy Systems' procedure for acquiring personal services from Martin Marietta Corporation, known as interdivisional operating directives, is not considered to be a part of the procurement process. The procedure is intended to allow Energy Systems to obtain services more quickly and easily than if normal procurement procedures were followed. Energy Systems issued 66 directives obligating over \$2.1 million between April 1984 and September 1986. Energy Systems' procurements during fiscal year 1986 totalled about \$438 million.

Results In Brief

Energy Systems' relationship with the Tennessee Innovation Center was inconsistent with DOE's conflict-of-interest requirements because it resulted in the Innovation Center obtaining an unfair competitive advantage over other firms. The Innovation Center obtained information from Energy Systems about a technology developed at the Oak Ridge laboratory that was not publicly available, giving the Center an

unfair competitive advantage over another, unaffiliated firm that was also trying to obtain the technology. Energy Systems did not follow conflict-of-interest procedures when dealing with the Innovation Center for 11 months, nor did it advise DOE that the Innovation Center was an affiliate until 20 months after the Center was established, even though both organizations were controlled by Martin Marietta during that period.

Allowing Energy Systems to obtain personal services from its parent company by using interdivisional operating directives has the potential to save time and money over using the procurement process. However, the DOE-approved procedure governing the use of the directives does not contain sufficient controls to ensure that the directives will result in the most economical acquisition of personal services.

Principal Findings

Undisclosed Affiliate Relationships

Energy Systems did not enforce conflict-of-interest requirements when contacts were made with the Tennessee Innovation Center from September 1984, when the Center was established, until August 1985. Further, Energy Systems did not recognize or disclose to DOE that the Center was an affiliate until May 1986.

Affiliate's Unfair Advantage

DOE regulations define conflicts of interest to include any relationship or situation in which a contractor has interests relating to the work being performed that may result in it or its affiliates being given an unfair competitive advantage. Contrary to this regulation and contract terms implementing it, Energy Systems provided the Tennessee Innovation Center with an unfair competitive advantage over another firm, Bell Communications Research (Bellcore), which was interested in obtaining a software program developed at Oak Ridge National Laboratory called the hazardous materials tracking system. On two occasions, Energy Systems released information on the tracking system to the Innovation Center before obtaining DOE approval to do so. The Innovation Center used information it received to attempt to sell information on the tracking system to Bellcore.

DOE does not perform any reviews of Energy Systems' compliance with contract terms regarding contacts with affiliates because the DOE contracting officer considers the terms to be self-policing. The contract

requires Energy Systems to disclose organizational conflicts of interest to DOE when they are discovered.

GAO believes Energy Systems' relationship with the Tennessee Innovation Center was inconsistent with conflict-of-interest provisions contained in Energy Systems' contract with DOE and with DOE regulations. However, Energy Systems did not believe its relationship with the Innovation Center constituted a conflict of interest. While DOE officials also believe no actual conflict of interest existed, they determined that Energy Systems' relationship to the Innovation Center raised conflict-of-interest concerns. To mitigate these concerns, DOE and Martin Marietta Corporation negotiated an agreement to limit Martin Marietta's financial gain from DOE technologies commercialized through the Innovation Center.

Operating Directive Controls

While Energy Systems and DOE officials interpret the procedure governing use of interdivisional operating directives as requiring advance DOE approval, DOE approval came after the work was scheduled to begin in 21 of the 31 cases GAO reviewed. Also, the procedure, unlike general procurement, does not require written justifications for acquiring services noncompetitively. The procedure does not require documentation of labor costs, the major cost element, in invoices for payment. In addition, required documentation of other costs is sometimes not submitted, and as of October 1986, no audits of the directives had been performed.

Recommendations

To strengthen DOE oversight of Energy Systems' compliance with conflict-of-interest requirements, GAO recommends that the Secretary of Energy direct the Oak Ridge Operations Office Manager to

- Require Energy Systems to identify all its current affiliates and report them to the DOE contracting officer.
- Carry out periodic reviews of Energy Systems to ensure that business contacts with affiliates and potential conflict-of-interest situations are identified and reported to DOE. (See p. 34.)

GAO is also recommending that the Secretary direct the Oak Ridge Operations Office Manager to strengthen controls over interdivisional operating directives. (See pp. 44-45.)

Agency Comments

The factual information in this report was discussed with DOE and Energy Systems officials. Changes have been incorporated in the report where appropriate. However, at the Chairman's request, GAO did not request the officials to review and officially comment on this report.

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Abbreviations

DOE	Department of Energy
FOIA	Freedom of Information Act
GAO	General Accounting Office
IDOD	Interdivisional/Intercompany Operating Directive
ORNL	Oak Ridge National Laboratory
ORO	Oak Ridge Operations Office

Introduction

Martin Marietta Energy Systems operates extensive energy research and production facilities in Oak Ridge, Tennessee, and Paducah, Kentucky, for the Department of Energy (DOE). The operating contract between DOE and Energy Systems provides that Energy Systems or its affiliates should not obtain an unfair competitive advantage over other parties by virtue of its performance of the contract. Under the terms of the contract, Energy Systems is required to restrict corporate activities that create organizational conflicts of interest. An organizational conflict of interest exists when a contractor or its affiliates are in a position where they may receive an unfair competitive advantage over other parties as a result of contract performance, according to the DOE acquisition regulations. As requested by the Chairman, Subcommittee on Oversight and Investigations, House Committee on Energy and Commerce, this report examines whether conflicts of interest arose as a result of the actions Energy Systems has taken as part of its technology transfer program and whether the procedure it uses to obtain personal services from its parent organization, Martin Marietta Corporation, and its affiliates is adequately controlled.

Background

DOE carries out its programs and activities through an organization consisting of headquarters offices in Washington, D.C., and eight operations offices located throughout the country. These operations offices manage 12 government-owned, contractor-operated laboratories, which are large, multidisciplinary facilities with broad capabilities in physical, chemical, nuclear, and life sciences as well as nuclear, electrical, mechanical, and other branches of engineering. DOE's Oak Ridge Operations Office (ORO) oversees a number of major facilities operated by contractors. One of these contractors—Energy Systems—currently operates the Oak Ridge National Laboratory (ORNL) and three nuclear production facilities.¹

Energy Systems is a wholly-owned subsidiary of Martin Marietta Corporation, established in 1983 so that the company could compete for the contract to operate the ORNL and the other facilities. Martin Marietta was awarded the contract and on April 1, 1984, Energy Systems took over management from Union Carbide Corporation, which had operated the facilities for 40 years. Energy Systems is responsible for the day-to-

¹One of these facilities, the Oak Ridge gaseous diffusion plant, was placed on standby in 1985 and is currently inactive. A second gaseous diffusion plant is located in Paducah, Kentucky. The third facility, the Y-12 plant in Oak Ridge, houses Energy Systems' administrative offices and produces nuclear material and weapons components. For purposes of this report, we will refer only to activities that occurred at Oak Ridge unless otherwise specified.

day operation of the laboratory and the other facilities under the guidance and direction of ORO personnel. With a fiscal year 1986 budget of about \$820 million, it employs about 16,000 people and makes extensive use of subcontracts to carry out the various activities called for in its prime contract with DOE.

Technology Transfer Program

Technology transfer is the process whereby new technologies developed through research are transferred to companies in the private sector for commercial development. DOE emphasized the importance of the technology transfer program in selecting a new Oak Ridge contractor by requiring applicants to show the approach they would use in conducting the program. DOE also expected the new contractor to use the technology transfer program to help the local Oak Ridge communities broaden their industrial tax base.

In its contract proposal, Martin Marietta stated that it would use the technology transfer program as a means of increasing industrial development in the Oak Ridge area by channeling as much technology as possible to new Oak Ridge businesses. Since it began operating the Oak Ridge facilities, Energy Systems has created a new Office of Technology Applications through which it administers a transfer program designed to identify technologies developed at the facilities and bring them to a state of readiness for licensing or sale. The Office of Technology Applications is headed by a vice president who reports directly to Energy Systems' president. Within the Office, program directors oversee the technology transfer activities at the various ORO facilities.

In addition, the contract proposal stated that Martin Marietta would invest up to 10 percent of its annual award fee (\$11,223,100 in fiscal year 1985) from the operating contract in new or expanding local businesses. The objective of this investment strategy would be to benefit the local area economically, ensure industrial application of the technologies, and provide a potential profit on the investment to Martin Marietta if the businesses were successful.

To implement the proposal, Martin Marietta helped establish a for-profit, venture capital firm known as the Tennessee Innovation Center. When established in September 1984, the Center was owned by Tennessee Innovation Partners, of which Martin Marietta owned 65 percent. However, Martin Marietta provided 100 percent of the funding the Center used to conduct business. In August 1986, Martin Marietta became the Center's sole owner, and Tennessee Innovation Partners was

dissolved. The Innovation Center provides financial, business, and clerical assistance to new business ventures and, in return, generally takes a minority ownership interest in them. As of July 31, 1986, the Center had invested in seven new companies that are working on commercializing several technologies, including three obtained from ORNL.

Energy Systems' Acquisition Procedures

Acquisition of goods and services by Energy Systems is governed by the terms of its operating contract with DOE. Also, DOE's acquisition regulations contain a major section governing operating contractors. The section has been incorporated in the contract by article 40, which states that Energy Systems' procurement methods must be acceptable to DOE. This acceptance was given on December 13, 1984, when DOE approved Energy Systems' procurement system, which is embodied in the firm's procurement operating manual.

Energy Systems has two separate organizations for procurement and contracts. The Procurement Division acquires goods and services from sources outside the company, utilizing the procedures prescribed in Energy Systems' procurement operating manual. The Contracts Division, on the other hand, is responsible for assuring that the terms of the prime contract with DOE are being properly complied with.

Energy Systems acquires personal services from Martin Marietta and its affiliates through a procedure known as Interdivisional/Intercompany Operating Directives (IDODS). DOE approved this procedure on June 28, 1984. IDODS are processed by the Contracts Division and are not considered part of Energy Systems' procurement process.

Objectives, Scope, and Methodology

This assignment originated as part of the work performed on an earlier review that resulted in a report on DOE's patent policies.² Subsequently, the Chairman of the Subcommittee on Oversight and Investigations, House Committee on Energy and Commerce, sent a letter to the Secretary of Energy on January 6, 1986, that, among other things, asked about Energy Systems' relationship with the Tennessee Innovation Center and Energy Systems' use of IDODS to obtain personal services. Also, the Chairman requested GAO to review DOE's response to these questions. This report fulfills that request.

²Energy Management. *Effects of Recent Changes in Department of Energy Patent Policies* (GAO/RCED-87-5, Dec 31, 1986)

Our objectives in this assignment were to determine (1) if the relationship between Energy Systems and the Innovation Center involved possible conflicts of interest, particularly with regard to the transfer of a computer software program known as the hazardous materials tracking system and (2) if Energy Systems' use of IDODs is adequately controlled.

We performed most of our work at DOE headquarters in Washington, D.C.; the DOE Oak Ridge Operations Office; and Energy Systems' facilities in Oak Ridge, Tennessee.

To accomplish our objective concerning the relationship between Energy Systems and the Innovation Center, we reviewed documents including the DOE/Energy Systems contract, DOE organizational conflict-of-interest regulations (discussed in chapter 2), DOE's and Energy Systems' conflict-of-interest procedures, DOE's request for proposals relating to the Oak Ridge operating contract, Martin Marietta's contract proposal, and other DOE and Energy Systems documents and files. We interviewed DOE personnel at headquarters and the Oak Ridge Operations Office. We also interviewed Energy Systems technology transfer personnel and Energy Systems attorneys in Oak Ridge. We interviewed and obtained documents from officials at the Tennessee Innovation Center in Oak Ridge, Tennessee, and at Bell Communications Research (Bellcore) in Piscataway, New Jersey, a company involved in the computer software transfer.

To accomplish our objective of determining if Energy Systems' use of IDODs is adequately controlled, we interviewed DOE procurement officials in Oak Ridge and at DOE headquarters and Energy Systems contracting officials. We also interviewed DOE and Energy Systems attorneys in Oak Ridge. We examined DOE's rationale for using IDODs rather than obtaining the services through competitive procurements. We also reviewed whether use of IDODs was consistent with regulations governing DOE's operating contractors and examined the procedures that DOE and Energy Systems employ to govern the use of IDODs.

As discussed in chapter 3, DOE and Energy Systems consider work performed under IDODs to be performance of contract work rather than support to Energy Systems, and therefore do not subject IDODs to normal procurement controls. We did not attempt to determine whether work performed under the IDODs Energy Systems has issued was properly categorized as support to Energy Systems rather than performance of contract work. Rather, our review focused on whether the controls DOE and

Energy Systems apply to IDODs provide adequate assurance that use of the process is in the best interest of the government.

We obtained information on all IDODs and IDOD modifications involving increased funding that have been issued since Energy Systems began operating the Oak Ridge facilities and evaluated 52 IDODs issued between April 1984 and March 1986. We judgmentally selected 10 of them for more detailed review to determine if advance DOE approval was obtained and if adequate supporting documentation of costs was provided by the organizations providing the services. In addition, we visited Mathtech, Inc., a Princeton, New Jersey, company (now independent but previously a division of Martin Marietta) and reviewed supporting documentation for costs incurred on six of these IDODs.

We discussed the factual information in the report with Energy Systems and DOE officials at Oak Ridge, as well as with representatives of the private companies that provided some information, and have included their comments where appropriate. However, as requested by the Chairman, we did not request company or DOE officials to formally review and comment on a draft of this report.

With the exception of obtaining agency comments on our findings, conclusions, and recommendations, our review was conducted in accordance with generally accepted government auditing standards between February and September 1986.

Energy Systems' Actions Involving the Tennessee Innovation Center Were Inconsistent With Organizational Conflict-Of-Interest Provisions

A number of Energy Systems' dealings with the Tennessee Innovation Center, an affiliated organization involved in technology transfer, were, in our opinion, inconsistent with organizational conflict-of-interest provisions in Energy Systems' contract with DOE and DOE regulations. Energy Systems did not treat the Innovation Center as an affiliate until 11 months after its establishment and thus did not enforce its organizational conflict-of-interest procedures when contacts were made between the two organizations during that period. We also believe that a number of Energy Systems' actions in transferring a technology known as the hazardous materials tracking system gave the Innovation Center an unfair competitive advantage over a non-affiliated company that was interested in obtaining the technology.

Organizational Conflict-Of-Interest Requirements

DOE acquisition regulations define organizational conflict of interest as a relationship or situation whereby a contractor has past, present, or currently planned interests that relate to the work to be performed under a DOE contract and that may result in the contractor or its affiliates being given an unfair competitive advantage. According to DOE regulations, businesses are affiliated when either directly or indirectly one concern or individual controls or has the power to control another, or when a third party controls or has the power to control both.

This regulation prohibiting conflict of interest is incorporated in article 61 of the operating contract between DOE and Energy Systems and is implemented through procedures developed by Energy Systems as required by the contract. The purpose of article 61 is to ensure that Energy Systems (1) is not biased because of its past, present, or currently planned organizational interests that relate to the work under the contract and (2) does not obtain any unfair competitive advantage over other parties by virtue of its performance of the contract. The scope of the article includes not only Energy Systems, but also its affiliates.

The operating contract places responsibility for identifying conflicts of interest with Energy Systems. Under article 61 of the contract, Energy Systems is required to notify DOE if it discovers an organizational conflict of interest subsequent to award of the contract. An immediate and full disclosure must be made in writing to the DOE contracting officer, including a description of actions taken to avoid or mitigate the conflict. DOE may accept the proposed actions or terminate the contract for convenience, if it is in the best interest of the government to do so. For breach of the conflict-of-interest restrictions, or for nondisclosure or

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misrepresentation of relevant facts required to be disclosed, DOE may terminate the contract for default.

Article 61 also requires Energy Systems to use its best efforts to control access by personnel of its parent company and other affiliates to the Oak Ridge facilities. In its internal procedures implementing the contract provisions, which DOE approved on September 27, 1984, Energy Systems required that all visits to the Oak Ridge facilities by affiliate personnel for the purpose of obtaining technical data or business information be approved in advance by designated Energy Systems officials at each of the facilities. The procedure requires the approving officials to make a permanent record of all such visits.

Additionally, the operating contract requires that DOE's permission be obtained before any Energy Systems employee is allowed to work on an intermittent basis for an outside firm, including Energy Systems' affiliates, while remaining on Energy Systems' payroll. The outside firm must reimburse Energy Systems for the salary and benefits of the loaned employee.

**Energy Systems Did
Not Treat the
Innovation Center as
an Affiliate**

Several of Energy Systems' actions or inactions involving the Tennessee Innovation Center were inconsistent with contract provisions that require contact with affiliate organizations to be controlled. They include:

- Energy Systems delayed recognizing the Innovation Center as an affiliate.
- Energy Systems loaned an employee to the Innovation Center without obtaining DOE's approval.
- Energy Systems did not control the Innovation Center's access to Oak Ridge facilities.

**Energy Systems Delayed
Recognizing the Innovation
Center as an Affiliate**

The Innovation Center has been an affiliate of Energy Systems since it was established on September 26, 1984, because Martin Marietta Corporation has owned a controlling interest in both organizations. However, Energy Systems did not begin treating the Innovation Center as an affiliate for organizational conflict-of-interest purposes until August 1985, after we questioned the relationship between the two organizations. Even then, Energy Systems maintained that the Innovation Center was not an Energy Systems affiliate. In November 1985 and January 1986, the Energy Systems Contracts Director noted in memorandums to DOE

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that Energy Systems considered the Innovation Center an affiliate for conflict-of-interest purposes only, but that the Center was not an actual affiliate.

Further, in his March 11, 1986, letter responding to inquiries by the Chairman, Subcommittee on Oversight and Investigations, House Committee on Energy and Commerce, the Secretary of Energy stated that the Innovation Center was not an Energy Systems affiliate, although he also stated that Martin Marietta owned a majority interest in the Innovation Center.

In May 1986, after we questioned DOE Oak Ridge officials regarding Energy Systems' contention that the Innovation Center was not an affiliate, a DOE attorney in the Oak Ridge Chief Counsel's office informed us that Energy Systems had been incorrect in its treatment of the Innovation Center. Energy Systems, on May 19, 1986, acknowledged that the Innovation Center was an affiliate.

Energy Systems' Contracts Director told us that he was not aware that Martin Marietta owned a controlling interest in the Innovation Center prior to our review because the Center was outside Energy Systems' contract and he did not have access to its ownership records. In May 1986 he said that he had only recently learned that Martin Marietta owned a majority interest in the Innovation Center.

Energy Systems' Vice President for Technology Applications has overall responsibility for the company's technology transfer activities. He told us he knew the extent of Martin Marietta's ownership in the Innovation Center when it was established and that Martin Marietta's ownership had been widely publicized in local papers. He did not, however, inform the designated conflict-of-interest official, the Contracts Director. He explained that Energy Systems' organizational conflict-of-interest procedures were new and that, when Martin Marietta established the Innovation Center, Energy Systems was unsure about how to treat contacts between Energy Systems and Innovation Center employees.

**Energy Systems Loaned an
Employee to the Innovation
Center Without Obtaining
DOE's Approval**

The Innovation Center's vice president and chief operating officer worked full time for the Center after being transferred from Energy Systems in October 1984, although he was retained on Energy Systems' payroll for 5 months before being officially terminated. During this 5-month period, the employee was on loan to the Innovation Center. This

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occurred without DOE's knowledge or approval, even though Energy Systems' contract with DOE requires advance DOE approval for such loans. However, as required by the contract, the Innovation Center reimbursed Energy Systems for the employee's salary and benefits costs during this period.

Energy Systems' Vice President for Technology Applications, who approved the employee's loan and subsequent transfer to the Innovation Center, told us that he permitted the employee to retain his Energy Systems status for several months while Martin Marietta established a benefits package for him. He further said that he was not aware that the contract required advance DOE approval in such circumstances. In his opinion, the employee was not "loaned" to the Innovation Center. He told us that Energy Systems knew from the beginning that the vice president's transfer would be permanent.

Energy Systems' Contracts Director said that it was an administrative oversight to neither remove the employee from Energy Systems' payroll when he began work at the Innovation Center nor obtain DOE approval for the period of the loan. However, he told us that the transfer occurred early in the contract period when Energy Systems' policies and procedures for carrying out contract provisions were still evolving. Energy Systems established a formal procedure in April 1985 to implement contract provisions for coordinating employee assignments to other corporate entities. This procedure requires advance DOE approval for employee loans.

**Energy Systems Did Not
Control the Innovation
Center's Access to Oak
Ridge Facilities**

Before August 1985 Energy Systems did not treat the Center as an affiliate for organizational conflict-of-interest purposes. During that time, the official responsible for approving visits by affiliates did not control visits by Innovation Center personnel to ORNL. To determine if any Innovation Center officials visited ORNL during this period, we reviewed records of ORNL visitors from September 1984, when the Center was established, to May 1985. Our review indicated that Innovation Center officials visited ORNL on at least five occasions. None of these visits were approved by the responsible Energy Systems official, although at least two of the visits were for purposes that required approval, according to the contract.

In addition, Energy Systems allowed the Innovation Center's vice president to retain his Energy Systems security identification badge from October 1984, when he began working for the Center, through February

1985, when his Energy Systems employment was officially terminated. After that time, Energy Systems extended his security clearance and provided him a take-home identification badge. These actions allowed the Innovation Center's vice president, with a few exceptions, to have unrestricted access to ORNL, without a record being established of his visits. According to Energy Systems' records, Energy Systems allowed the Innovation Center's vice president to keep his employee security badge and extended his security clearance after he was terminated because he was to be closely associated with Energy Systems and would be involved in meetings throughout the plant and in evaluating Energy Systems' technologies.

The Energy Systems Vice President for Technology Applications, according to Energy Systems' records, made the request to extend the vice president's clearances and issue him the identification badge. He told us that non-Energy Systems personnel usually obtain security clearances when their duties require them to frequently visit the Oak Ridge facilities. Although the Center's vice president retained an identification badge, his visits to ORNL were still subject to the approval process governing affiliates' access to Oak Ridge facilities. According to Energy Systems' records, however, the first approved visit did not take place until October 1985, over 1 year after the vice president transferred to the Innovation Center. Because his badge allowed the vice president unrecorded entry to ORNL, we could not determine how many times he visited the laboratory before October 1985.

Energy Systems' Actions in Transferring Technology Favored the Innovation Center

In addition to the problems noted in the previous section, there are other concerns regarding Energy Systems' dealings with the Tennessee Innovation Center. These concerns are specifically related to Energy Systems' attempts to transfer a technology called the hazardous materials tracking system to the private sector. In our opinion, these actions are inconsistent with organizational conflict-of-interest provisions in Energy Systems' contract with DOE. We believe that actions taken by Energy Systems in transferring the tracking system gave the Innovation Center an unfair competitive advantage over a nonaffiliated firm that was interested in obtaining the system. These actions include:

- According to the Innovation Center, Energy Systems suggested that it obtain the tracking system under the Freedom of Information Act (FOIA). Energy Systems did not inform the nonaffiliated firm that it could also obtain the tracking system information under FOIA.

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- Energy Systems transferred tracking system information to the Innovation Center before DOE authorized its release to the public, including the Innovation Center.
- Energy Systems did not inform the nonaffiliated firm of its true relationship to the Innovation Center.

Each of these actions is discussed following the chronology of events which appears below.

**Transfer of the Tracking
System: a Chronology of
Events**

Since 1982, ORNL has been developing an automated tracking system to maintain inventory records on its hazardous chemicals and wastes. The system, called the hazardous materials tracking system, incorporates federal environmental and shipping regulations for hazardous materials and contains a wide range of health, safety, environmental, and related information on hazardous chemicals at ORNL. ORNL designed the system to track hazardous materials within the laboratory from receipt to disposal using machine-readable labels, but it has not fully implemented the system.

Energy Systems believes the system has widespread commercial potential for use in companies having large hazardous waste inventories. It estimated that 700 companies on the east coast would have an immediate need for such a system. In 1984, Bellcore, the research arm of the Bell operating companies, had research facilities under construction in New Jersey that would handle hazardous chemicals and other materials and needed a mechanism to track the materials to comply with state and local requirements. Bellcore learned of the automated tracking system being developed at ORNL and sought to acquire it.

The sequence of events involving Bellcore, Energy Systems, and the Tennessee Innovation Center, as related to us by various participants and other cognizant officials, shows that in late 1984 and 1985 Bellcore met with or contacted Energy Systems on various occasions about the tracking system. During this period, Energy Systems also was assisting the Innovation Center in obtaining information on the tracking system, which the Center planned to market to private users such as Bellcore. Bellcore, on its part, believed that it was dealing solely with Energy Systems, the developer of the tracking system; that the Innovation Center was a part of Energy Systems; and that it was being offered free assistance in developing a similar tracking system based on the system Energy Systems was developing. Not until a meeting in June 1985 was

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Bellcore informed that the Innovation Center was a separate entity affiliated with Energy Systems which intended to sell the tracking system technology through its client company, Axxess Corporation, for a profit.

Table 2.1 presents a chronology of events and actions among the parties between late 1984 and early 1986.

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**Table 2.1: Chronology of Events
Surrounding the Transfer of the
Tracking System**

Date	Event/action	Explanation
9/17/84	Bellcore meets with Energy Systems to discuss details of obtaining the tracking system for use at research facilities it has under construction	In this and successive meetings, until June 1985, Bellcore believes it will obtain the system from Energy Systems without charge
11/29/84	Energy Systems asks DOE for authorization to copyright the tracking system in order to license it to Bellcore and others	
12/17/84	Energy Systems meets with Bellcore and agrees to forward overview information on the system and a proposed confidentiality agreement	The required confidentiality agreement prohibits Bellcore from disseminating tracking system information outside its organization.
12/19/84	Energy Systems sends Bellcore the tracking system overview and promises to send the confidentiality agreement soon	
12/20/84	Energy Systems meets with DOE to discuss the copyright authorization request. DOE refuses to grant the request. At the same meeting, Energy Systems and DOE discuss the possibility of having the Innovation Center obtain the tracking system data through a FOIA request. The Center is not represented at the meeting	DOE refuses to grant the copyright request for two reasons: (1) DOE believes it is inappropriate to tie such an authorization to a "Work for Others" arrangement, as Energy Systems requested in this case, and (2) DOE does not believe the copyright authorization can be processed in time to meet Bellcore's need to have a system in operation by April 1985
12/21/84	The Innovation Center submits a FOIA request to DOE for the tracking system data	
1/3/85	The Innovation Center sends Bellcore a copy of the tracking system user manual and a proposed confidentiality agreement between Bellcore and the Center, instead of Bellcore and Energy Systems	DOE has not yet acted on the FOIA request for the user documentation. It is unclear how the Innovation Center obtained it to send to Bellcore. Bellcore believes it is still dealing with a branch of Energy Systems
1/30/85	Bellcore visits Oak Ridge for a demonstration of the tracking system. Energy Systems, Bellcore, and Innovation Center officials meet to discuss the marketing potential of the system. Following this meeting, Bellcore begins developing its own system, but still hopes to obtain the tracking systems' data base containing safety information on hazardous chemicals	The Innovation Center representative at the meeting is not identified to Bellcore as representing a separate, affiliated organization that intends to market the tracking system.

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Date	Event/action	Explanation
2/6/85	DOE sends a letter to Energy Systems authorizing it to release certain tracking system data to the Innovation Center. It also sends a letter to the Center explaining the release of the information	The letter and release of information is in lieu of a response to the Innovation Center's FOIA request
3/18/85	Bellcore sends Energy Systems the signed confidentiality agreement between Bellcore and the Innovative Center and a letter outlining its goals for working with Energy Systems to develop the tracking system	Bellcore does not realize it is dealing with two different organizations
6/5/85	Innovation Center and Axxess Corporation (a client company approximately 60 percent owned by the Center) representatives, instead of Energy Systems officials, show up for meeting with Bellcore. The representatives tell Bellcore that the Center is a separate entity from Energy Systems, that Axxess has the rights to the tracking system, and that Bellcore can purchase it from Axxess Bellcore subsequently abandons efforts to obtain any part of the tracking system	Bellcore first learns that Energy Systems and the Innovation Center are not the same organization
7/23/85	Energy Systems gives Axxess written documentation on the tracking system although DOE has not given permission for such a release	The tracking system information has not yet been submitted to the National Energy Software Center, ^b which would make it available to the public
2/3/86	Energy Systems notifies DOE that the tracking system information is sufficiently developed to transmit to the Software Center	

^a"Work for Others" is a contractual arrangement, requiring DOE approval, whereby Energy Systems may perform work at DOE facilities for outside organizations. In return, the organizations reimburse DOE for the work performed under a full-cost-recovery basis

^bThe National Energy Software Center is a clearinghouse established by DOE to ensure that any software it funds is shared by all DOE organizations and contractors

As discussed below, several of the actions taken by Energy Systems are inconsistent with the conflict-of-interest provisions in DOE's operating contract with Energy Systems.

**Use of the FOIA to Obtain
the Tracking System**

During the December 20, 1984, meeting between DOE and Energy Systems, DOE denied Energy Systems' copyright authorization request on the tracking system. As a result, Energy Systems could not license the tracking system to an outside firm. DOE and Energy Systems officials

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told us they then discussed the possibility of the Innovation Center (which was not represented at the meeting) obtaining the system under the FOIA and then transferring it to Bellcore. The DOE Patent Counsel who attended the meeting told us that Energy Systems' Vice President for Technology Applications suggested that the Innovation Center could make a request through FOIA, although the Vice President told us he did not make this suggestion.

The following day, on December 21, 1984, the Innovation Center submitted an FOIA request for the tracking system. The Center's vice president told us that he submitted the FOIA request at the suggestion of Energy Systems' Technology Transfer Program Director, although he said he did not know that DOE had refused to grant Energy Systems' copyright authorization the day before he submitted the request. He told us he was aware of the tracking systems' commercial potential as a result of being previously employed in Energy Systems' technology transfer program. He also knew of Bellcore's interest in the tracking system and thought that Bellcore could become the Innovation Center's first customer. He said he planned to develop and sell the tracking system to Bellcore.

The Technology Transfer Program Director told us he did not tell the Innovation Center to submit a request for the tracking system under FOIA. He also said that at the time, the technology transfer program was new and there was confusion as to how the program would operate. He said since then Energy Systems has established better controls and tightened the program's organization.

According to the Bellcore official working to obtain the tracking system, he was never informed that Energy Systems could not transfer the tracking system as promised. Also, Bellcore was not informed that (1) DOE had a role in releasing the information, (2) the Innovation Center had requested the information under FOIA, or (3) the information was publicly available after DOE authorized Energy Systems to release it to the Innovation Center.

**Energy Systems
Transferred Information to
the Innovation Center
Before DOE Authorized Its
Release**

On two occasions information on the tracking system was provided to either the Innovation Center or its client company, Axxcess Corporation, before DOE authorized its release and before it was available to Bellcore.

In late 1984 or early 1985, according to the Innovation Center's vice president, Energy Systems provided him with a draft user manual on the system before DOE responded to the FOIA request. He told us that he sent the manual to Bellcore on January 3, 1985. Bellcore officials confirmed receiving the manual by the end of January 1985. The manual contained a legend stating it was to be treated as business confidential and identifying it as belonging to the Innovation Center. The Energy Systems officials involved in the transfer of the tracking system, however, said they did not release tracking system information (such as the user manual) before DOE authorized it, except for a brief system overview which was given to both Bellcore and the Innovation Center.

Energy Systems released additional information without DOE authorization after DOE had responded to the FOIA request. On February 6, 1985, the DOE Assistant Manager for Energy Research and Development wrote a letter to Energy Systems authorizing it to give the Innovation Center as much of the information as was available that it had requested under FOIA. The letter authorized the release of written user documentation and system documentation on the tracking system as it existed at the time of the request. (Because the response was not prepared in accordance with FOIA procedures, DOE did not consider it to be a formal response, but rather a response in lieu of a response under FOIA.) The Assistant Manager noted in a separate letter to the Innovation Center that some of the requested information did not yet exist.

DOE officials told us that the Assistant Manager's letter closed the FOIA request. However, following DOE's release of the information, the Innovation Center continued to press DOE and Energy Systems for additional information, even though the letter clearly indicated that more information would not be forthcoming. In fact, the letter stated that DOE expected the Innovation Center to develop source codes for the tracking system on its own.

During 1985, Energy Systems continued to develop the tracking system source codes for mission-related purposes, which would ultimately place them in the National Energy Software Center. In authorizing this continued development, the DOE Assistant Manager for Energy Research and Development told us that he did not intend for Energy Systems to

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provide newly developed information on the tracking system to the Innovation Center.

Nevertheless, in July 1985, Energy Systems gave the Innovation Center's client company, Axxess Corporation, a copy of the computer source codes as well as several miscellaneous support files needed to use the system, 7 months before DOE authorized public dissemination of the information. It was not until February 1986 that Energy Systems notified DOE that the tracking system was sufficiently developed to submit it to the National Energy Software Center. As noted earlier, DOE procedures require that computer software be placed in the Software Center before it is made available to the public; it would then have been routinely available to Axxess.

**Energy Systems Did Not
Inform Bellcore of Its
Relationship to the
Innovation Center**

Energy Systems brought the Innovation Center into the discussions with Bellcore on the tracking system without explaining to Bellcore the relationship between the two organizations, although it had several opportunities to do so. Energy Systems also forwarded to the Center correspondence it received from Bellcore on the tracking system. Bellcore continued working for several months under its initial understanding that Energy Systems would provide it the tracking system, and that the Innovation Center was an Energy Systems division responsible for technology transfer. Bellcore did not learn that the Innovation Center was a separate corporate entity until a June 1985 meeting.

**Energy Systems Introduced the
Innovation Center and Bellcore at a
Meeting in January 1985**

In January 1985, Energy Systems invited the Innovation Center's vice president to participate in a meeting it was having with Bellcore. However, neither Energy Systems nor the Center's vice president explained the Innovation Center's role in Energy Systems' technology transfer program or its involvement in the tracking system's transfer. According to the Bellcore official who attended the meeting, the Innovation Center's vice president was identified as a legal advisor to Energy Systems from the Innovation Center. The Center's vice president told us that Bellcore probably misunderstood the relationship between the Innovation Center and Energy Systems because, during the meeting, no one explained to Bellcore that the two organizations were separate.

**Energy Systems Provided Bellcore
Correspondence to the Innovation
Center**

Following the January 1985 meeting, Energy Systems sent two documents it received from Bellcore on the tracking system to the Innovation Center without notifying Bellcore.

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On January 3, 1985, the Innovation Center sent Bellcore a confidentiality agreement on the tracking system. Still thinking it was working with Energy Systems to obtain the tracking system, in March 1985 Bellcore returned the signed agreement to the Energy Systems Technology Transfer Program Director. The responsible Bellcore official, the Manager of Corporate Safety and Environmental Control, told us he sent the agreement to the Director because the Director had told him that the Innovation Center was an Energy Systems organization responsible for technology transfer. Therefore, he said he believed he was still dealing with Energy Systems and not a different corporate entity. In addition, an internal Bellcore document indicates that the Energy Systems Director told Bellcore he had received and was satisfied with the confidentiality agreement.

The Director, on the other hand, first told us that he had never seen the agreement. When we later found a copy of it in his files, he said that he did not know why Bellcore sent the agreement to him instead of the Innovation Center. He said that the technology transfer program was just getting started at the time and was still loosely organized. Even though Energy Systems' organizational conflict-of-interest procedures had been in effect for several months, he said he was unsure as to how Energy Systems should treat the Innovation Center.

The Innovation Center's vice president told us that Energy Systems forwarded the signed agreement to him. He said he did not know why Bellcore sent the agreement to Energy Systems instead of directly to the Innovation Center.

On March 18, 1985, the same day that it returned the Innovation Center's confidentiality agreement to Energy Systems, Bellcore also sent the Technology Transfer Program Director a letter describing the expected roles of Bellcore and Energy Systems in developing the tracking system at Bellcore's facilities. This letter indicates that Bellcore believed Energy Systems was still actively involved in transferring the tracking system to Bellcore. The Bellcore letter in the Director's file was annotated as being sent to the Innovation Center. The Director agreed that a copy of the letter must have been sent to the Innovation Center, but he did not remember sending it and did not know why it was sent.

The Innovation Center Attended a Meeting Bellcore Scheduled With Energy Systems

As confirmed in a May 20, 1985, letter, Bellcore invited Energy Systems personnel to a June 1985 meeting to bring them up to date on Bellcore's progress in creating its own chemical tracking system. According to the

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letter, Bellcore expected the Energy Systems representatives to bring the hazardous materials informational data base. Bellcore was still interested in obtaining the data base although it had been developing its own tracking system.

The Bellcore official who scheduled the meeting told us that representatives from the Innovation Center and Axxess Corporation came to the meeting instead of the people he had invited from Energy Systems. He said that he had had no previous contact with any of the visiting officials and had not been notified that the Energy Systems officials he had invited would not attend. He said the officials explained the Innovation Center's role in the tracking system's technology transfer and indicated that the Center had obtained the rights to the system. The representatives informed Bellcore that it would have to deal with Axxess instead of Energy Systems concerning the tracking system and the computer tape containing the data base on hazardous materials. They also told Bellcore that it would have to buy the hazardous materials tape from Axxess. However, at that time, the Innovation Center had not obtained the information from Energy Systems, and neither it nor Axxess Corporation had obtained ownership rights to the system or its data base.

The Bellcore official told us that Axxess Corporation's involvement and its subsequent attempt to sell Bellcore the data tape went completely against all the verbal agreements that Energy Systems and Bellcore had previously made. He said that, during all of the previous discussions, Bellcore was led to believe that it was obtaining the information free from Energy Systems.

Energy Systems officials involved in the tracking system transfer to Bellcore told us that they do not know how the Innovation Center arranged to attend the Bellcore meeting. The Director told us that he never planned to attend the meeting. Another Energy Systems official said that he telephoned Bellcore saying that he would not be attending the meeting.

The Innovation Center's vice president told us that he could not recall the specific events leading up to his visit to Bellcore. He said, however, that he had had several telephone conversations with Bellcore prior to the meeting. He further stated that, when he explained the actual relationship between Energy Systems and the Innovation Center, it was clear that Bellcore was not previously aware of it.

DOE and Energy Systems Are Acting to Address Conflict-Of- Interest Concerns, but More Needs to Be Done

During our review, DOE officials became concerned about perceptions of organizational conflicts of interest relating to Energy Systems' involvement with the Innovation Center. Energy Systems maintains that no actual or apparent conflict of interest has taken place, and it has not made a conflict-of-interest disclosure to DOE. After reappraising the relationship between Energy Systems and the Innovation Center, DOE officials, on the other hand, said that in retrospect they believe there was an appearance of conflict of interest although no actual conflict occurred.

To mitigate this apparent conflict of interest, DOE has established an agreement with Martin Marietta Corporation to limit the Corporation's investment return from the Innovation Center and its client companies. In addition, we confirmed that Energy Systems is now enforcing its conflict-of-interest procedures with regard to visits by Innovation Center representatives to ORNL, thereby strengthening some controls over potential conflicts of interest.

Energy Systems' Views on Conflict of Interest

Energy Systems officials told us they do not believe there has been a conflict of interest in their dealings with the Innovation Center; therefore, Energy Systems has not made a conflict-of-interest disclosure to DOE. They agreed that certain administrative requirements relating to Energy Systems' interactions with affiliated organizations were not met. However, they consider this to be an oversight that occurred due to lack of experience under the DOE contract, the developing nature of the conflict-of-interest procedures, and lack of knowledge concerning the Innovation Center's ownership.

Energy Systems officials defended their and the Innovation Center's actions regarding transfer of the tracking system. They said that the Innovation Center did not financially profit from obtaining the tracking system from Energy Systems and that therefore no actual harm was done.¹ They told us the Center has already incurred a loss of \$150,000 in developing the tracking system for marketing. They also said that the Innovation Center requested the tracking system from DOE under FOIA, an option available to any company or individual, and that Energy Systems was responding to the FOIA request in providing the tracking

¹The DOE regulations governing organizational conflict of interest do not state that financial harm must take place in order for a conflict to occur. It also makes no distinction between an "actual" conflict and an "appearance of" conflict of interest.

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system information to the Innovation Center, an action it would have taken no matter who the requester was.

DOE's Views on Conflict of Interest

DOE Oak Ridge Operations Office officials responsible for overseeing Energy Systems' contract also told us that they were not aware of an actual conflict of interest in the relationship between Energy Systems and the Innovation Center. They said that they knew Martin Marietta was responsible for establishing the Center, but they did not know it had a majority ownership interest in the Center until 1986. At the conclusion of our review, however, they told us that they believe the relationship between Energy Systems and the Innovation Center constitutes an appearance of conflict of interest.

DOE's Patent Counsel told us that he did not believe an actual conflict of interest took place because neither of the criteria for a conflict, in his opinion, had been met. He said that Energy Systems was not biased in its work as a result of giving the Innovation Center the tracking system information that was not in the public domain, and that the Innovation Center has not been able to use the information to obtain a government contract and thus benefit financially.

In recognition of the appearance of a conflict, DOE and Energy Systems formed a task force to review the organizational relationships between Energy Systems, the Innovation Center, and Martin Marietta Corporation in transferring technology from the Oak Ridge facilities. DOE officials told us that the purpose of the task force was to examine and mitigate any perceived conflict-of-interest problems while attempting to preserve the Innovation Center's concept as a method of transferring technology.

The task force identified several options available for addressing perceived organizational conflicts of interest with the Innovation Center's involvement in the technology transfer process:

- Martin Marietta could take no action regarding the Innovation Center because it established the Center with its own private investment funds and no government funding is involved.
- Martin Marietta could write off its investment in the Innovation Center.
- Martin Marietta could sell its interest in the Innovation Center.
- Martin Marietta could convert the Innovation Center to a nonprofit organization.

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- **Martin Marietta could change its business approach with the Innovation Center.**

After considering these options, the task force officials decided that changing the business approach between Martin Marietta and the Innovation Center was the only viable option that would preserve the Innovation Center's concept while avoiding conflict-of-interest perceptions. They believed that it would be extremely difficult for the corporation to sell its interest in the Innovation Center. Additionally, DOE officials believed that converting the Innovation Center to a nonprofit organization was not desirable because, without the profit potential, future subsidies would be required to keep the program operating.

On the basis of the task force's recommendations, Martin Marietta Corporation agreed to an approach in which it would limit its return on investments from the Innovation Center and its client companies. Both DOE and Martin Marietta believe that limiting the earnings from the Center will mitigate any unfair advantages that Martin Marietta might obtain through its control over Energy Systems, which administers the technology transfer program.

When our review work was completed, DOE and Martin Marietta Corporation were drafting a formal agreement that would limit the Corporation's return on investment from Innovation Center companies under certain circumstances. Under this agreement, Martin Marietta's aggregate earnings from the client companies would be capped at levels established by the agreement when the companies receive licenses on Energy Systems' technologies, or when Energy Systems employees assist the companies in developing the technologies, either as part-time employees or as consultants. Any earnings exceeding the limit would benefit organizations devoted to public purposes and include as their corporate purposes the maturation of DOE-initiated technologies requiring additional development efforts. According to the agreement, Martin Marietta would not profit from returns on investment exceeding the limit.

Because the agreement was still in draft when we completed our review work, we did not evaluate its potential effectiveness as part of this report, as agreed with the requester. Based on our preliminary review of the agreement, several questions may need further consideration. These include

- how Martin Marietta would calculate the amount of return on investment received from Innovation Center companies;

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- how Martin Marietta will account for possible increased market value of the Innovation Center companies;
- how return on investment will be calculated for Innovation Center companies that develop technologies from both ORNL and non-DOE sources;
- whether any restrictions will be placed on Martin Marietta companies not associated with the Innovation Center, but which develop ORNL technologies; and
- how the agreement will be enforced.

As requested by the Chairman, we are currently reviewing the agreement, which was finalized on October 30, 1986.

**Further Improvements
Needed in Conflict-Of-
Interest Enforcement**

While DOE and Energy Systems have taken positive steps to mitigate conflict-of-interest concerns relating to the Tennessee Innovation Center, we believe additional actions are needed to strengthen the enforcement of organizational conflict-of-interest provisions governing Energy Systems' relationships with affiliates. In particular, we believe DOE needs to take a more active role in determining whether conflicts of interest exist rather than relying on Energy Systems to notify it of such situations. Such action would include DOE's ensuring that (1) it is aware of Energy Systems dealings with affiliated firms and (2) Energy Systems discloses all conflict-of-interest situations to DOE.

Under DOE regulations, Energy Systems should have treated the Innovation Center as an affiliate since the Center was established in September 1984. However, Energy Systems did not do so until almost a year later and did not recognize or disclose to DOE that the Center was an actual affiliate until May 1986. The DOE contracting officer told us that DOE has not performed any reviews of Energy Systems' compliance with conflict-of-interest terms regarding contact with affiliates, and that the conflict-of-interest contract provisions are self-policing for Energy Systems. Thus, DOE was not aware that the Center was an Energy Systems affiliate in December 1984 when the discussions of involving the Center in the commercialization of the tracking system took place. We believe DOE should be aware of affiliate relationships so that it can provide adequate oversight of Energy Systems' compliance with conflict-of-interest requirements in the contract.

The contract also requires Energy Systems to disclose organizational conflicts of interest to DOE's contracting officer when they are discovered. However, Energy Systems officials said they did not believe that the Innovation Center's involvement in the tracking system transfer

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constituted a conflict of interest and thus did not file a conflict-of-interest disclosure with DOE. DOE has since recognized that there are concerns regarding conflict of interest in the relationship between Energy Systems and the Innovation Center and is attempting to mitigate these concerns through the earnings limitation agreement.

We believe that Energy Systems should have realized the potential for conflict of interest when it became aware that the Innovation Center was an affiliate and should then have notified DOE. However, Energy Systems did not view the situation as one which should be reported to DOE. DOE can improve its oversight by reviewing compliance with conflict-of-interest requirements as part of its periodic assessment of Energy Systems' activities (for example, as part of reviews carried out in connection with DOE's determination of Energy Systems' award fee).

Conclusions

We believe that Energy Systems' activities relating to the transfer of the hazardous materials tracking system, as well as certain other aspects of its dealings with the Tennessee Innovation Center, were inconsistent with the organizational conflict-of-interest provisions contained in its contract with DOE and with DOE regulations. In our opinion, Energy Systems gave its affiliate an unfair competitive advantage over Bellcore when Bellcore and the Innovation Center indicated an interest in obtaining the tracking system at the same time.

In our view, the unfair advantage was given when, according to the Innovation Center, Energy Systems provided it with information not similarly provided to Bellcore on how it could obtain the tracking system through the FOIA and by giving it tracking system information without DOE authorization. While it is true that anyone may request information through FOIA, we believe it is significant that the Innovation Center submitted its request only 1 day after DOE denied Energy Systems' copyright authorization request. The denial made it impossible for Energy Systems to grant Bellcore a license to use the tracking system. Further, because Energy Systems did not inform Bellcore that DOE had denied its request to copyright the tracking system and license it, Bellcore would not have realized the need to attempt to obtain the information through FOIA even if it was aware that it could do so.

Energy Systems continued to let Bellcore believe that the Innovation Center was an Energy Systems division even though it knew Bellcore's

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understanding was erroneous. Energy Systems also provided the Innovation Center with correspondence regarding Belcore's plans for developing the tracking system. These actions helped the Center in its efforts to approach Belcore with a sales proposal concerning the system.

Other actions by Energy Systems involving the Innovation Center were not consistent with organizational conflict-of-interest contract requirements or Energy Systems' procedures regarding affiliate organizations. Energy Systems did not recognize the Innovation Center as an affiliate for 18 months after the Center was established, although a top-level Energy Systems official knew of the relationship. Energy Systems also did not control access to DOE facilities by Innovation Center personnel or obtain DOE approval for loaning an employee to the Center, as required the contract. Energy Systems officials stated that their inactions in this regard were based on lack of knowledge concerning the Innovation Center's ownership and lack of familiarity with their own conflict-of-interest procedures. We believe, however, that Energy Systems was responsible for complying with its own procedures as soon as they were approved by DOE.

While the operating contract requires Energy Systems to notify DOE if conflict-of-interest situations arise, DOE did not recognize that Energy Systems was not implementing these contract terms and that a potential existed for organizational conflict of interest in the relationship between Energy Systems and the Innovation Center during the period when the tracking system was being transferred. As a result, the effectiveness of DOE's oversight was reduced.

DOE, in recognition of an appearance of conflict of interest, has recently entered into an agreement with Martin Marietta to limit Martin Marietta's earnings from the Innovation Center and its client companies, which is designed to mitigate this situation. While we have not yet evaluated the adequacy of this agreement, we believe DOE needs to take a more active role in overseeing Energy Systems' activities regarding conflict of interest to assure that future conflicts do not occur. In particular, DOE needs to ensure that Energy Systems identifies affiliated organizations with which it has business dealings and discloses potential conflict-of-interest situations to DOE. This would enable DOE to lessen its reliance on Energy Systems to determine whether or not conflicts of interest have occurred and should be reported.

Recommendations

To strengthen DOE oversight of Energy Systems' compliance with conflict-of-interest requirements, we recommend that the Secretary of Energy direct the Oak Ridge Operations Office Manager to:

- Require Energy Systems to identify all its current affiliates and report them to the DOE contracting officer. This could be accomplished through a one-time review, then updated by determining whether any new business contact is an affiliate and periodically reporting such contacts to DOE.
- Carry out periodic reviews of Energy Systems to ensure that business contacts with affiliates and potential conflict-of-interest situations are identified and reported to DOE.

Controls Over Interdivisional Operating Directives Should Be Strengthened

Energy Systems uses interdivisional/intercompany operating directives (IDODs) to acquire personal services from Martin Marietta or its affiliates on a noncompetitive basis. Both DOE and Energy Systems believe the government can benefit from the use of IDODs because they allow Energy Systems to obtain services more quickly and easily than if normal procurement procedures were followed. While we recognize that the IDOD process can provide benefits, procedures used by DOE and Energy Systems to control IDODs do not provide assurance that their use is in the government's best interest. DOE needs to strengthen the procedures by, among other things, requiring Energy Systems to prepare sole-source justifications for IDODs of substantial dollar amounts and ensuring that work on IDODs does not begin until after the IDOD has been approved by DOE.

Description of IDODs

IDODs are interdivisional/intercompany work orders for personal services that authorize Martin Marietta or its affiliates to perform work for Energy Systems on a noncompetitive basis. The DOE-approved IDOD procedure allows Energy Systems to reimburse the organization providing the services for its costs, including labor, burden, travel, subsistence, miscellaneous related material, and other expenses. However, Energy Systems cannot pay a fee for work performed under an IDOD. The IDOD procedure does not limit the amount of time or funds that may be obligated for an IDOD.

According to the procedure, all IDODs are subject to approval by the DOE contracting officer except those issued pursuant to an advance written understanding under the terms of the operating contract.¹ These "excepted" IDODs are used to obtain Martin Marietta home office support services, including personnel, financial, and tax accounting. They are considered "preapproved" by DOE because the dollars and staff-years to be spent on them are negotiated annually by DOE and Energy Systems.² The Energy Systems Director of Contracts determines which IDODs fall into this category.

¹The advance written understanding now consists of appendix C of the contract, which defines Martin Marietta home office support. DOE and Energy Systems officials told us that other advance understandings could be added in the future.

²The remainder of this chapter will not apply to IDODs issued pursuant to the advance understanding. Because they are defined in the contract, and DOE and Energy Systems annually negotiate limits on the time and money to be spent on these IDODs, there appear to be adequate controls over how they are used.

**Chapter 3
Controls Over Interdivisional Operating
Directives Should Be Strengthened**

All IDODs are initiated through proposals prepared by Energy Systems personnel and submitted to its Contracts Division for processing, preparation, and coordination as necessary. The proposals must include time and cost estimates as well as a definition of the work to be performed.

Between April 1984 and September 1986, Energy Systems issued 66 IDODs with an obligated budget of \$2,182,967. Table 3.1 summarizes the IDOD activity as of the end of our review. We evaluated the 52 IDODs totaling \$1,916,000 that were issued by Energy Systems from April 1984 through March 1986 and were available at the beginning of our review. We did not review the remaining 14 IDODs, issued through September 30, 1986.

Table 3.1: Summary of IDODs Issued to Martin Marietta From April 1984 to September 1986

Division	Number	Amount	Percent of DOE-approved funding	Percent of total funding
DOE-approved				
Aluminum	1	13,000	0.7	0.6
Corporate Headquarters	3	191,500	10.5	8.8
Data Systems	10	950,750 ^a	52.3	43.5
Environmental Systems	8	300,250	16.5	13.8
International	1	134,088	7.4	6.1
Laboratories	8	157,479	8.7	7.2
Orlando Aerospace	6	30,600	1.7	1.4
Denver Aerospace	3	39,200	2.2	1.8
Total DOE-approved	40	\$1,816,867	100.0	83.2
"Preapproved" IDODs	26	366,100		16.8
Total IDODs	66	\$2,182,967		100.0

^aA revision to one of these IDODs reduced the obligated amount by \$160,000 in September 1986. The original obligated amount is shown in the figures above.

IDODs Are Treated Differently From Other Procurement

DOE has authorized Energy Systems to use different procedures to control the use of IDODs from the procurement procedures that control Energy Systems' subcontracts with Martin Marietta Corporation and intracompany transfers or payments over \$10,000. DOE and Energy Systems officials cited several reasons for establishing different procedures to control the use of IDODs.

Article 40 of the operating contract requires Energy Systems to have a procurement system that is acceptable to DOE. Article 40 further

requires that procurement or transfer of services from a contractor-controlled source are to be considered procurement for the purposes of the article. To comply with this requirement, Energy Systems developed a system, embodied in its Procurement Division operating manual (procurement manual), that contains its procedures and controls over all procurements. DOE approved this system in December 1984.

In a December 13, 1984, letter approving Energy Systems' procurement system, DOE stated that the following controls would apply to Energy Systems' procurements from affiliates: (1) DOE advance approval would be required for all subcontracts with Martin Marietta or its affiliates and (2) advance notification would be required for intracompany transfers or payments over \$10,000. These controls essentially incorporate provisions in DOE acquisition regulations that require DOE advance approval or advance notification for certain types of procurements.

While Energy Systems' contract with DOE does not discuss IDOD procedures other than those relating to Martin Marietta home office support,³ the DOE contracting officer with primary responsibility for overseeing the contract told us that he has agreed with Energy Systems that IDODs will not be subject to the procurement process, and therefore are not subject to normal procurement controls. This official said his action was an interpretation of article 40 of the contract. He explained that section 970.4404(b) of DOE's acquisition regulations allows such an interpretation since the work under an IDOD is considered performance of the contract work itself rather than support to Energy Systems. Procurements to support Energy Systems' performance of work are governed by Energy Systems' procurement system. He further noted that under DOE regulations, procurement is to be effected in the manner most advantageous to the government—price, quality, and other factors considered.

DOE and Energy Systems contracting officials told us that IDODs are not subjected to procurement controls to allow the Martin Marietta practice of using internal resources to meet corporate needs instead of seeking the resources competitively, as long as the corporate unit providing the resources foregoes fee or profit. They said this gives Energy Systems flexibility, saves time, and allows the contractor to use in-house corporate experience and take advantage of beneficial commercial practices. They also stated that because the amount spent on IDODs has been relatively small compared to total Energy Systems procurements (which

³As noted earlier, IDODs relating to Martin Marietta home office support are discussed in appendix C of the contract. However, there is no mention in the contract of other types of IDODs

totalled \$438 million in fiscal year 1986), there has been little potential for abuse of the IDOD procedure.

Improvements Needed in IDOD Procedures and Implementation

We recognize that allowing Energy Systems to obtain services through the IDOD process may potentially provide benefits to the government since it may allow Energy Systems to obtain services more quickly and easily than if normal procurement procedures were followed. However, the procedures used to control the use of IDODs and the way in which the procedures are carried out do not ensure that the use of the IDOD process to obtain particular services is in the best interest of the government. In this regard, we found that

- justifications for noncompetitive procurement are not provided to DOE to support IDOD requests, even when the request involves substantial dollar amounts;
- in some cases work on IDODs began before DOE approved them, even though both DOE and Energy Systems interpret the IDOD procedure as requiring advance DOE approval;
- adequate information to document the cost of work performed has not been submitted to Energy Systems by the organizations providing services; and
- neither DOE nor Energy Systems has performed audits of IDODs.

Noncompetitive Justifications Are Not Prepared to Support IDOD Requests

The IDOD procedure does not require Energy Systems to prepare written justifications for obtaining services noncompetitively when requesting DOE approval of IDODs, regardless of the dollar amount involved. Without such information, DOE may not have the information needed to determine why the service is not being obtained competitively and why Martin Marietta has been selected to provide the service.

In approving Energy Systems' procurement system, DOE required that for intracompany transfers over \$10,000, Energy Systems provide, as part of its advance notice to DOE of the transfer, a justification for noncompetitive procurement if the transfer was not awarded competitively. This requirement incorporated provisions contained in section 970.4408 of DOE's acquisition regulations.

Further, Energy Systems' own procurement manual requires that sole-source justifications must accompany any noncompetitive transactions over \$5,000. As applicable, it must address such things as (1) the supplier's exclusive capability or unquestionable predominance in the field

(determined through a site market study or other systematic method performed by Energy Systems), (2) the supplier's vital exclusive or extensive prior experience, including a description of efforts to locate other sources of supply, (3) the supplier's specialized equipment and/or facilities and why they are vital to the project, (4) the schedule requirements, explaining any emergency or the consequences of failing to meet a schedule, and (5) the anticipated excess cost of competitive bidding and the basis for the estimate. Energy Systems and DOE do not, however, require that these provisions be applied to IDOD requests since IDODs are not treated as procurements.

The provisions governing Energy Systems' use of IDODs do not require that justifications for noncompetitive procurement be prepared, even when IDODs involve substantial amounts of money.⁴ For example, Energy Systems awarded two IDODs to develop a marketing information system for enriched uranium, one for \$50,000 and one for \$480,000. Together, these represent the largest Energy Systems IDOD obligation, accounting for about 24 percent of total IDOD funds obligated to date. These IDODs contained no justifications, however, either in terms of the need for the work to be performed or the reason for selecting Martin Marietta to carry out the work. Energy Systems officials told us that justifications for noncompetitive procurement are not needed for IDODs because the organization performing the work is not paid a fee. Because Martin Marietta does not profit from them, there is no incentive for Energy Systems to direct work inappropriately under an IDOD.⁵

While not paying a fee for IDODs should mitigate the potential for abuse of the procedure, circumstances may occur that could result in the selection of an Energy Systems affiliate not being in the best interest of the government. For example, IDODs could potentially be used to keep Martin Marietta personnel productively employed during slack periods in the company's work schedule. Also, wages and benefits of company employees may be higher than those of outside firms, the company's expertise may not be the best for the job, or the company may need considerably more time to complete a project than would an outside firm.

⁴As discussed earlier, DOE's acquisition regulations require noncompetitive procurement justifications for intracompany transfers over \$10,000.

⁵The provision that prohibits payment of a fee is consistent with section 970.3102-15 of DOE's acquisition regulations, which requires that procurement from any commonly controlled division, subsidiary, or affiliate shall be on the basis of cost incurred, except when the procurement is made through fair and open competition, or based on catalog prices for items sold to the general public

In the case of the largest IDOD approved to date, Energy Systems compared hourly rates charged by several outside companies for various types of computer personnel to rates charged by Martin Marietta. The overall conclusion drawn from the comparison was that Martin Marietta's rates were lower. However, we could not verify this determination because in some cases the job categories were not compatible and in others only selected rates were shown. Further, Energy Systems did not determine if the other companies could do the work in less time. In any case, the information was not made available to DOE before it authorized the work.

**Advance Approval of
IDODs Not Always Obtained**

While DOE and Energy Systems officials interpret the IDOD procedure as requiring advance DOE approval of IDODs, in some cases work on IDODs began before DOE approved them. The written IDOD procedure approved by DOE states that IDODs are "subject to approval by the DOE contracting officer." Both DOE and Energy Systems officials told us that they interpret the IDOD procedure as requiring advance DOE approval, even though such a requirement is not formally specified in the written procedure. DOE contracting officials also noted that the IDOD requirement for advance approval is a stronger control than advance notification, which DOE requires for other intracompany transfers over \$10,000.

We found, however, that of the 31 IDODs we reviewed requiring DOE advance approval, 21 (68 percent) were approved after the scheduled beginning date for work.⁶ Table 3.2 shows the time lag from the start of the period of performance to the DOE approval date.

⁶Of the nine IDODs requiring DOE approval that were issued after March 30, 1986, one was not approved in advance of the scheduled start date.

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**Table 3.2: IDODs Approved by DOE
After Scheduled Beginning Date**

Number of IDODs	Number of days between scheduled beginning date and DOE approval
1	120
4	64-79
6	31-56
4	24-30
6	2-17
Modifications involving budget increase	
3	51-79

Note Of the 24 IDODs, 21 were not submitted to DOE for approval until after the scheduled beginning date for work

We reviewed Energy Systems' accounting records for eight original IDODs and two modifications that were approved late to determine if Martin Marietta actually started working on the IDODs before DOE approved them. We also reviewed Martin Marietta's accounting records for six of these. In five cases Martin Marietta started working on the IDODs before DOE approved them. In the remaining five cases we could not determine, from the information available, when work actually started.

DOE and Energy Systems officials told us that even though some IDODs were not approved until after work began on them, the government would not be responsible for the cost of performing work if DOE decided not to approve the IDOD. They told us that if DOE decided not to approve an IDOD where work was already underway, Martin Marietta would not be paid and would have to absorb the incurred costs.⁷ Such a situation has never occurred, however, because DOE has never disapproved an IDOD.

DOE contracting officials said that while they have never disapproved an IDOD, that should not be interpreted as indicating they simply "rubber stamp" IDODs. They said Energy Systems discusses proposed IDODs with DOE program officials before submitting IDOD requests for DOE approval, and do not submit any IDODs that DOE would not approve. They stated, however, that they were not aware of documentation of these discussions.

⁷Energy Systems' Contracts Director told us that while initial work had begun on a number of IDODs before DOE actually approved the IDOD, Energy Systems only officially authorized work on one IDOD involving \$250 without obtaining DOE approval.

**Data Needed to Support
Costs**

The IDOD procedure does not require supporting documentation on labor and burden costs, which constitute the major cost factor, to be submitted to Energy Systems by the provider organization. Without such documentation, neither Energy Systems nor DOE can assure that "actual cost" is being allocated to IDODs as required by the procedure.

We selected 10 IDODs for which we reviewed Energy Systems' accounting records. The invoices for five of these IDODs, which obligated \$339,000, contained no supporting data on people or number of hours worked. They identified labor costs only as a line item in each bill submitted to Energy Systems. Three IDODs which obligated \$544,000 (including one IDOD for \$480,000) had invoices that did identify people and/or wage rates and the number of hours worked. One other IDOD did not identify hours worked on the invoices because it was written to pay a percentage of salaries, regardless of hours worked. No invoices had been submitted for payment on the tenth IDOD. An Energy Systems official told us that information on labor costs could be obtained if needed, either by sending an employee to the provider organization or by having the provider send the necessary documents to Energy Systems.⁸

The IDOD procedure requires that supporting documents for travel and subsistence costs be submitted to Energy Systems by the provider organization. However, we found that the providers did not submit them in several cases. Six of the IDODs in the sample we reviewed involved travel expenses, but for five of them the required supporting documents were not in the accounting files.

**No Audits of IDODs
Performed by DOE or
Energy Systems**

As of October 1986, neither DOE nor Energy Systems had carried out audits of IDODs. While the IDOD procedure does not require that audits of IDODs be performed, Energy Systems contract and audit officials told us that IDODs, like other Energy Systems activities, are subject to audits. They said that IDODs have not been audited because relatively little work has been performed under IDODs to date. They said, however, that it is now appropriate for them to begin considering including IDODs in activities to be audited.

During our review, a DOE contracting official also requested an audit of IDODs from the ORO Finance Division. However, as of October 1986, the audit had not been scheduled or performed. DOE normally reviews

⁸We visited one former Martin Marietta division and verified that the supporting documents for labor costs are available on IDODs it had performed for Energy Systems.

Energy Systems' activities at least semiannually to determine the award fee under the contract, and on other occasions determined by DOE.

Conclusions

DOE has authorized the use of IDODs as a way to allow Energy Systems flexibility and speed in obtaining services from Martin Marietta and its affiliates. Both DOE and Energy Systems contracting officials believe the IDOD procedure can benefit the government since it allows Energy Systems to obtain services more easily than if it had to follow normal procurement procedures. These officials have also agreed that IDODs are not to be treated as procurement and thus are not subject to requirements governing Energy Systems' procurement activities. In this regard, they note that the potential for abuse of the IDOD process is limited since the amount spent on IDODs has been relatively small (just over \$2 million as of September 1986) and that organizations performing work under IDODs do not receive a fee.

While we recognize that the IDOD process has the potential to provide benefits to both Energy Systems and the government, we believe that improvements are needed in the IDOD procedures and Energy Systems' compliance with them. Currently, Energy Systems does not prepare non-competitive justifications for any IDODs, regardless of dollar amount. Also, DOE advance approval has, in many cases, not been obtained prior to the scheduled start of work, even though DOE and Energy Systems interpret the IDOD procedure as requiring it. Further, Energy Systems is not obtaining sufficient supporting information on costs incurred on IDODs, and no periodic audits of IDODs have been performed. Improvements in these areas should allow DOE contracting officials to ensure that Energy Systems' use of IDODs is in the government's best interest. Such changes in the IDOD process will also make procedures governing the use of IDODs more consistent with procedures governing Energy Systems' procurement process.

Recommendations

We recommend that the Secretary of Energy direct the Manager of the Oak Ridge Operations Office to strengthen controls governing the use of IDODs, including

- directing that Energy Systems (1) amend its IDOD procedure to require specifically that advance DOE approval be obtained before work may begin on IDODs and (2) ensure that IDODs have been approved by DOE before performance begins;

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- requiring that sole-source justifications, as defined in Energy Systems' procurement manual, be included in the submission of IDODs involving substantial dollar amounts (the appropriate dollar amount could be set taking into consideration the amount above which sole-source justifications are required for intracompany transfers under DOE's acquisition regulations and Energy Systems' procurement system);
- requiring supporting documents on costs incurred, including labor charges, to be submitted to Energy Systems for review and verification before payment is made; and
- directing that audits of IDODs be included in DOE's regularly scheduled audits of Energy Systems' activities.

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