United States General Accounting Office

GAO

Report to Congressional Requesters

August 1989

NUCLEAR WASTE

Quarterly Report as of March 31, 1989

GAO/RCED-89-178

GAO

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

Resources, Community, and
Economic Development Division

B-202377

August 14, 1989

The Honorable J. Bennett Johnston
Chairman, Committee on Energy
and Natural Resources
United States Senate

The Honorable James A. McClure
Ranking Minority Member
Committee on Energy and Natural Resources
United States Senate

On March 26, 1984, you requested that we provide quarterly status reports on the implementation of the Nuclear Waste Policy Act of 1982 (NWPA). That act created the Office of Civilian Radioactive Waste Management (OCRWM) within the Department of Energy (DOE) to implement a federal program for the safe and permanent disposal of high-level nuclear waste in one or more geologic repositories. NWPA set forth a process and schedule for DOE to follow in selecting three candidate sites for a nuclear waste repository, characterizing (investigating) the three sites, and selecting one site for construction and operation of a repository. DOE was also to select a site for a second repository. DOE had selected three sites for characterization when the Congress amended the act in December 1987. Among other things, the amendments limited site characterization activities to one of the three sites—Yucca Mountain, Nevada.

In carrying out the nuclear waste program, OCRWM has principally relied on numerous contractors to conduct studies and prepare key program documents. Many of these contractors also manage and operate DOE's nuclear facilities.

In mid-1987, DOE decided to enter into a management and operating contract with a long-term partner (contractor) to provide management and operating resources to (1) manage the necessary design, development, engineering, and related activities needed to develop the waste management system, (2) integrate the work of the many participating contractors, including those at the then three candidate sites, and (3) integrate future efforts following site selections. Accordingly, in October 1987 DOE began the process of hiring such a contractor. DOE revised its request for proposals following the December 1987 amendments and in December 1988 announced that it would award the contract to Bechtel Systems

"energy concern," such involvement constitutes a violation of 42 U.S.C. 7216. That statute prohibits supervisory DOE employees from knowingly participating in DOE proceedings in which a former employer that is an "energy concern" is substantially, directly, or materially involved within that 1-year period.

The court issued a preliminary injunction on March 22, 1989, stating that, among other things, it was greatly troubled by the implication of the evidence presented about this official's involvement, which raised a strong suggestion of possible "impropriety and influence." One of the issues addressed at the subsequent hearing, which ran from March 30, 1989, through May 8, 1989, was whether the DOE attorney who reviewed the OCRWM official's financial disclosure reports was correct in finding that Science Applications was an "energy concern" within the meaning of the statute.

Although the attorney testified that she found the company was an "energy concern" in this case, she said that she had found otherwise in a later case. She and another DOE attorney testified, however, that the earlier finding was based on a cursory review, whereas the later finding was based on an extensive analysis. The DOE attorneys also testified that the later finding was confirmed in a recent review. Further, the DOE attorneys testified that in their opinion the conflict-of-interest statute had not been violated because the 1-year term prescribed therein had expired before Science Applications became materially involved in the proceeding. The court's decision was pending as of July 14, 1989.

Use of Management and Operating-Type Contract Questioned

Some opposing views existed within DOE about the most appropriate type of contract to use for this procurement. DOE's General Counsel questioned whether using a management and operating-type contract would meet the requirements of the Federal Acquisition Regulations, because the duties of the contractor might not satisfy the requirements for this type of contract. The regulations speak to the management and operation of a government-owned or -controlled "establishment" but this particular contractor would not manage or operate an establishment for at least 10 years. Also, the General Counsel expressed concern about whether a broad review of DOE's reliance on the use of management and operating contracts might result if a suit questioning the propriety of this management and operating contract was successful.

DOE's procurement office disagreed, stating that no other type of contract would permit the contractor to accomplish the range of work

"federal norm" in issuing subcontracts for procuring goods and services. Although not required by law, we believe that contractors who operate a federal facility and who are 100-percent federally funded should follow the "federal norm." DOE believes that it is best to rely on the contractors' purchasing systems. DOE's position is that although some guidance is needed and has been provided, the companies, motivated by the need to make profits, will use purchasing systems to buy goods and services at reasonable prices.

Inadequate Competition Costs the Government Millions of Dollars

In December 1987, DOE's Inspector General reported that over a 10-year period, the contractor operating DOE's Savannah River Site had ignored the recommendations of DOE's field office advising against use of sole-source procurements.[2] The Inspector General estimated that competition could have saved $10 million a year. Accordingly, the Inspector General recommended that the contract terms be revised to provide the field office with the leverage needed to ensure that identified problems are corrected. The field office, however, said that DOE requires management and operating contractors to follow good business practices, not adherence to federal procurement regulations, and that the contractors should be given the latitude needed to obtain the benefits of proven commercial procedures.

Since the Inspector General's report was issued, DOE hired a new firm to manage and operate the Savannah River Site. In commenting on the facts of our report, a DOE official said that the present contractor is subject to new regulations that should correct the leverage problem that the Inspector General had reported.

Salaries of Contractor Personnel Not Set in Accordance With DOE Standards

In a March 1989 report, the Inspector General said that DOE's acceptance of a contractual relationship with the Sandia Corporation permitting deviations from DOE standards resulted in unnecessary personnel costs of about $20 million in 1987.[3] The Inspector General recommended that DOE develop a departmental position on the appropriateness of deviations from current DOE policy on compensation to contractor employees. In commenting on the report, however, DOE's Director of Administration said that if the salary provisions of the contract are in fact a deviation

[2]Sole-Source Procurements by E. I. Du Pont De Nemours and Company for the Department of Energy Savannah River Plant (DOE/IG-0246, Dec. 2, 1987).

[3]Salary Administration Practices, Sandia National Laboratories, Albuquerque, New Mexico (DOE/IG-0266, Mar. 20, 1989).

We interviewed the Director of the OCRWM's management and operating transition office to obtain information on this procurement. We met with the DOE attorney responsible for handling this procurement to discuss the pending lawsuit and to review legal advice given to procurement officials about this procurement.

To identify issues and problems relating to DOE contracts and procurements, we reviewed recent reports issued by us and DOE's Office of the Inspector General. We also discussed the status of DOE's actions on the recommendations made in these reports with DOE officials.

We discussed the facts presented in this report with cognizant DOE officials and incorporated their comments where appropriate. Our work was performed from March through May 1989.

We are sending copies of this report to the Chairmen of the Senate Committee on Governmental Affairs, the House Committee on Government Operations, and the House Committee on Energy and Commerce; the Secretary of Energy; the Chairman of the Nuclear Regulatory Commission; and other committees of the Congress and interested parties.

Appendix I discusses the status of the pending lawsuit filed against DOE, the decision-making approach used to determine the type of contract for this procurement, and past GAO and DOE Inspector General reports on management and operating contracts and related DOE policies and procedures. Major contributors to this report are listed in appendix II. If you have any questions on this report, please call me on (202) 275-1441.

Keith O. Fultz
Director, Energy Issues

YMPO is responsible for project management and execution at the repository. Under YMPO's guidance and supervision, seven major contractors and the U.S. Geological Survey perform most repository work. Five of the contractors do not have specific contracts to work on the repository but instead perform work under management and operating (M&O) contracts they have with DOE for other purposes. Under a typical M&O contract, a firm is responsible for the overall management and operations of a particular DOE facility. These contractors may, in turn, subcontract work to firms with the technical expertise needed for specific tasks. The five DOE M&O contractors and a brief description of their responsibilities follow:

- Holmes and Narver, Inc., an M&O contractor for DOE's Nevada nuclear weapons test site, is the architect-engineer for above-ground facilities, including design and site preparation.
- Reynolds Electrical and Engineering Company is the prime support contractor for subsurface and surface construction, drilling, and mining. It is also an M&O contractor at DOE's Nevada test site.
- DOE's Lawrence Livermore National Laboratory, operated by the University of California, is responsible for developing the waste package container.
- DOE's Los Alamos National Laboratory, also operated by the University of California, is responsible for various technical studies.
- DOE's Sandia National Laboratory, operated by a subsidiary of AT&T Technologies, Inc., is responsible for repository systems development.

The two other major contractors at the Yucca Mountain project are

- Fenix and Scisson, Inc., which is the architect-engineer responsible for underground facilities' construction and testing as well as drilling and mining at the Yucca Mountain repository site, and
- Science Applications International Corporation, which is responsible for technical and management support services.

The U.S. Geological Survey, under an interagency agreement with DOE, is responsible for site hydrologic and geologic characterization.

Management and Operating Contract Will Change the Way Program Is Administered

In authorizing OCRWM to enter into a management and operating contract, the DOE Undersecretary, in July 1987, said that OCRWM needed a long-term partner (contractor) to develop the nuclear waste disposal system. He said that the contractor, working with DOE and other contractors, would provide management and operating resources to (1) manage

- Los Alamos Technical Associates—technical support.

As planned, BSMI will oversee, coordinate, and integrate the efforts of the seven major contractors and the U.S. Geological Survey already working on the program to ensure that their efforts proceed in a well structured, systematic manner to meet technical, schedule, cost, safety, environmental, and quality assurance requirements consistent with applicable DOE orders and external regulatory requirements. More specifically, the contractor will

- ensure that site characterization activities at Yucca Mountain, Nevada, proceed smoothly, consistent with the NWPA, as amended;
- support OCRWM in obtaining necessary permits for the repository and, ultimately, a construction authorization from the Nuclear Regulatory Commission;
- perform repository facility and waste package design and inspection functions;
- support OCRWM in obtaining a license from the Nuclear Regulatory Commission to operate the repository and in preparing for waste acceptance testing and operations;
- assist OCRWM in managing and integrating the transportation program in support of DOE's responsibilities for safe, efficient, and economic transportation of nuclear waste; and
- provide siting, design, and licensing services for the MRS facility, as required.

Adverse Decision on Lawsuit Could Delay Contract Award

A lawsuit protesting DOE's selection of BSMI could, according to agency officials, delay DOE's award of the contract by 1 year. Such a delay would require DOE to continue to divert substantial staff resources to this effort.

On December 23, 1988, one of the two unsuccessful bidders, TRW Environmental Safety Systems, Inc. (TESS), filed with the U.S. Claims Court a preaward bid protest and a motion seeking an injunction preventing DOE from awarding the contract to BMSI. TESS alleged that, among other things, DOE's award decision had not been made in accordance with the request for proposals and that violations of conflict-of-interest laws and regulations had occurred. On March 22, 1989, the U.S. Claims Court, in granting TESS' motion for a preliminary injunction, said that it is greatly troubled by the implication of the evidence presented "which raises a strong suggestion of possible 'impropriety and influence' and, as a consequence, sees a compelling need to have this matter further explored."

technical and management support services at the Yucca Mountain site and a DOE contract for the development of a licensing support system that will be used to gather data needed for DOE's application to the Nuclear Regulatory Commission for a license to construct the repository. TESS questioned whether the possibility that the management and operating contractor may be given responsibility for the licensing support system influenced DOE's decision to award the contract to BSMI.

DOE, in its brief filed with the court opposing TESS' motion for a permanent injunction, said that TESS' contention that Science Applications' involvement with OCRWM and work at the Yucca Mountain site under a separate contract constituted involvement with this procurement was baseless. DOE said that Science Applications' work at Yucca Mountain was clearly involved with OCRWM's efforts to carry out its organizational mission and that in no way can the work be characterized as involvement with the development of the systems engineering, development, and management contract.

In its complaint, TESS alleged that DOE had assured TESS that it was seeking a contractor with systems engineering experience and that a lack of nuclear waste experience would not preclude TESS from being awarded the contract. TESS advised the court that it learned in a December 19, 1989, briefing that it had not been awarded the contract, in part, because of its lack of nuclear industry experience.

In commenting on this matter in its brief, DOE said that the request for proposals contained explicit written requirements and evaluation factors that notified all proposers of the relative importance of the various components of the request's statement of work. Also, DOE said that even a cursory review of the statement of work discloses that nuclear industry design, licensing, and engineering experience is of significant importance for performance of the contract.

TESS also sought to disqualify BSMI as a bidder, to prohibit DOE from awarding the contract to BSMI, and to recover approximately $3 million in proposal development costs. To pursue this claim, the U.S. Claims Court required TESS to post a $1 million bond that could be forfeited in whole or in part as reimbursement for costs resulting from the suit if TESS loses.

The hearing ran from March 30, 1989, through May 8, 1989. The preliminary injunction barring DOE from awarding the contract will remain in effect until the court renders its final decision. The court's decision was

that the work to be performed did not fit the FAR criteria for M&O contracts to the same degree as previous M&O contracts, DOE's procurement office said that it was still convinced that the procurement requirements were best met by an M&O contract.

DOE's procurement office also disagreed that a support services or research and development contract would meet the needs of this procurement. In the opinion of procurement officials, these types of contracts did not offer the benefit of the M&O contract's "extend/compete" mechanism for contract renewal.[3] The contract, they said, would minimize interruptions in the contractor's work and, in the event of a change in contractor, give special protection to personnel and ongoing work during the transition phase. Also, with the "extend/compete" mechanism, DOE would be able to renew a contract without going through an extensive competitive process.

GAO and Inspector General Reports on Other M&O Contracts

In earlier reports, we and DOE's Inspector General (IG) raised some issues about DOE's policies and procedures for administering M&O contracts. Because these issues address DOE's general approach to administering M&O contracts, they are applicable to the M&O contractors working on the Yucca Mountain project. They are also relevant to the proposed systems integration contract. These audit reports discussed ways in which DOE could help ensure that M&O contractors take better advantage of competition and adhere to procedures designed to maintain the salaries of contractor personnel at reasonable levels.

DOE, however, disagreed with most of the recommendations in the reports. One of the basic reasons for DOE's disagreement with our recommendations is related to the issue of whether the M&O contractors should follow the contracting requirements that federal agencies must follow, which we favor, or use their own purchasing systems, which DOE favors.

[3]Under the extend/compete mechanism, DOE periodically (usually every 5 years) decides whether to terminate an M&O contract and award a new one under competitive procurement procedures or to extend the existing contract for an additional period of time.

Our report also discussed DOE's plans to implement the provisions of the then recently enacted Anti-Kickback Enforcement Act of 1986. The act requires that government prime contractors take steps to reduce their vulnerability to kickbacks when awarding subcontracts. We said that because the act was recent, and because DOE was awaiting the development of overall federal regulations by the General Services Administration, it had not yet acted to implement the act's requirements.

We analyzed DOE's January 8, 1988, comments on our recommendations in a May 5, 1988, letter to the Chairman of the Subcommittee on Environment, Energy, and Natural Resources, House Committee on Government Operations (B-227610). Our analysis included our views on the adequacy of DOE's implementation of recommendations it agreed with and DOE's reasons for disagreeing with the other recommendations. The following discussion briefly summarizes the results of our analysis.

In its comments, DOE said that it was implementing our recommendation that it regularly review contractors' use of B-items (weapons parts and materials that DOE laboratories specify must be purchased from a particular source or sources). We later confirmed that DOE did this. DOE, however, disagreed with the need to take similar action with regard to the second category of exempted procurements (items purchased from among DOE's network of defense-related M&O contractors), stating that its procedures allow oversight of such orders. We said that although its procedures allow oversight, DOE was not regularly reviewing these orders at the contractor sites we visited.

In response to our recommendation that it establish a common definition of competition, DOE said that it had initiated action to improve its contractors' procurement practices through a rule making. The goals of the rule making are worthwhile in that they would, among other things, consolidate and update DOE's regulations governing operating contractors' procurements. The rule making, however, is not specific enough to allow DOE to measure consistently the degree of competition achieved by its contractors.

DOE disagreed with or did not comment on our other recommendations that it

- require its contractors to publish notices in the Commerce Business Daily for procurements over $100,000;

Because of its finding that the contractor, over a 10-year period, consistently failed to implement the Operations Office's recommendations for improving procurement operations, the IG questioned whether the contract terms provide DOE with sufficient leverage to ensure that the contractor is responsive to recommendations for needed improvements. The IG said that the contractor could have achieved savings through greater use of competitively obtained price agreements, management reviews ensuring that sole-source procurements are made only when necessary, and more timely development of procurement requirements. The IG recommended that the contract terms be revised so that the Operations Office would have the leverage needed to ensure that problems like noncompetitive procurements are corrected.

In commenting on the IG's findings, the Operations Office said that official DOE policy did not require M&O contractors to adopt procurement policies and procedures identical to those of federal agencies. Instead, DOE's regulations have a general policy stipulation that M&O contractor procurement systems should be "well defined, consistently applied and follow good business practices appropriate for the requirement and amount of procurement involved."[6] The Operations Office said that M&O contractors should be given sufficient latitude to obtain the benefits of proven commercial procurement practices.

Since the IG's report was issued, a new firm has been hired to manage and operate the Savannah River Site. A DOE official, in commenting on the facts of our report, said that the present contractor is subject to new regulations that were not in effect for the old contract. He said that the new regulations should, if properly enforced, correct the leverage problem that the IG reported.

Salaries of M&O Contractor Personnel Not Set in Accordance With DOE Standards

In March 1989, the IG reported that DOE had accepted a contractual relationship with the Sandia Corporation that permitted deviations from DOE standards.[7] As a result, DOE incurred costs of about $20 million more than necessary for Sandia employee salaries in 1987.

Sandia is an M&O contractor responsible for research and development relating to nuclear weapons and energy. Sandia, a subsidiary of AT&T Technologies, Inc., operates on a cost-reimbursable, nonprofit basis as a

[6]See Subpart 970.7103 of Department of Energy Acquisition Regulations (1988).

[7]Salary Administration Practices, Sandia National Laboratories, Albuquerque, New Mexico (DOE/IG-0266, Mar. 20, 1989).

In commenting on the facts of our report, DOE officials pointed out that Sandia's work on the nuclear waste program accounts for only a small portion of its total effort under its contract with DOE. Also, they told us that DOE is currently studying Sandia's salary structure.

Requests for copies of GAO reports should be sent to:

U.S. General Accounting Office
Post Office Box 6015
Gaithersburg, Maryland 20877

Telephone 202-275-6241

The first five copies of each report are free. Additional copies are $2.00 each.

There is a 25% discount on orders for 100 or more copies mailed to a single address.

Orders must be prepaid by cash or by check or money order made out to the Superintendent of Documents.

Related GAO Products

Nuclear Waste: DOE Has Terminated Research Evaluating Crystalline Rock for a Repository (GAO/RCED-89-148, May 22, 1989).

Nuclear Waste: Termination of Activities at Two Sites Proceeding in an Orderly Manner (GAO/RCED-89-66, Feb. 6, 1989).

Nuclear Waste: DOE's Method for Assigning Defense Waste Disposal Costs Complies With NWPA (GAO/RCED-89-2, Feb. 2, 1989).

Nuclear Waste: Repository Work Should Not Proceed Until Quality Assurance Is Adequate (GAO/RCED-88-159, Sept. 29, 1988).

Nuclear Waste: Fourth Annual Report on DOE's Nuclear Waste Program (GAO/RCED-88-131, Sept. 28, 1988).

Nuclear Waste: Information on Cost Growth in Site Characterization Cost Estimates (GAO/RCED-87-200FS, Sept. 10, 1987).

Nuclear Waste: A Look at Current Use of Funds and Cost Estimates for the Future (GAO/RCED-87-121, Aug. 31, 1987).

Nuclear Waste: DOE Should Base Disposal Fee Assessment on Realistic Inflation Rate (GAO/RCED-88-129, July 22, 1988).

Nuclear Waste: DOE Should Provide More Information on Monitored Retrievable Storage (GAO/RCED-87-92, June 1, 1987).

Nuclear Waste: Status of DOE's Implementation of the Nuclear Waste Policy Act (GAO/RCED-87-17, Apr. 15, 1987).

Nuclear Waste: Status of DOE's Nuclear Waste Site Characterization Activities (GAO/RCED-87-103FS, Mar. 20, 1987).

Nuclear Waste: Institutional Relations Under the Nuclear Waste Policy Act of 1982 (GAO/RCED-87-14, Feb. 9, 1987).

Major Contributors to This Report

Resources, Community, and Economic Development Division, Washington, D.C.

John W. Sprague, Associate Director
Dwayne E. Weigel, Assistant Director
Richard A. Renzi, Assignment Manager
Sharon E. Dyer, Evaluator-in-Charge

service to the government. Its 1987 payroll totaled $319 million, of which $277 million was for nonbargaining employees, that is, employees not covered by a union agreement.

DOE had approved a provision in Sandia's contract that permitted it to follow the compensation policies of its corporate parent and a peer subsidiary, Bell Laboratories, with adjustments for local conditions, in setting salaries of nonbargaining employees. The IG pointed out that this provision, which had remained essentially unchanged since 1949, deviated from DOE regulations requiring that contractor pay rates be comparable to those paid in the private sector for similar work.

Further, the IG said that DOE regulations require that DOE approve the reasonableness of M&O contractor salary expenses in advance. The regulations define reasonableness as salary rates paid by "other firms of the same size, in the same industry, or in the same geographic area for similar services or work performed." The IG reported, however, that DOE was unable to demonstrate that Bell's salary administration practices, which Sandia followed, had been evaluated before being accepted as reasonable. Moreover, Sandia was not required to provide DOE with the details of Sandia's salary administration practices and market comparisons.

The IG compared Sandia's salary rates with various surveys to determine whether the salaries were in line with competitive market conditions.[8] It was on this basis that the IG estimated that Sandia may have caused DOE to incur unnecessary salary costs of about $20 million in 1987.

The IG recommended that DOE develop a departmental position on the appropriateness of deviations from current DOE policy on compensation to contractor employees. In commenting on a draft of the report, however, DOE's Director of Administration said that it reflects a general misunderstanding of the contractual relationship between Sandia and DOE. The Director said that if the salary provisions of the contract are a deviation from general DOE regulations, then "management argues that the contract constitutes formal recognition and approval of these exceptions."

[8]The IG compared Sandia's salaries with a (1) survey of 104 research and development organizations made by a DOE contractor, The Hay Group, (2) report by Towers, Perrin, Forster & Cosby, a national firm that publishes salary trend data by region, and (3) survey data of positions in Albuquerque, N.M., published by Organizational Resource Counselors, Inc.

- establish standard procedures for operating contractors to follow in seeking to obtain competition for procurements between $25,000 and $100,000, including requirements to document market searches; and
- establish minimum procedures to implement the Anti-Kickback Enforcement Act of 1986.

We concluded that DOE did not provide adequate justification for not adopting these recommendations. For example, DOE indicated that it disagreed with our recommendation to publish notices for procurements over $100,000 because of the burden such publication would place on contractors. We said that our findings refuted this contention because only one-half of 1 percent of contractor procurements made in 1985 were above $100,000, but such procurements accounted for 50 percent of the procurement dollars.

In commenting on the facts of this report, DOE officials said that DOE continues to disagree with our recommendations for the reasons set forth in its January 1988 comments and in a March 10, 1989, response to the Chairman's request to critique our May analysis. In its March 1989 response, DOE spoke of the benefits of M&O contracts in carrying out DOE's missions, promoting local economic development, and helping small disadvantaged minority companies. DOE said that the practice of using commercial business practices of the companies is based on the concept that the companies, to continue to make profits, will use purchasing systems to secure goods and services at reasonable prices. Nevertheless, it said that since these M&O contractors are using federal funds, over the years, DOE has developed appropriate standards and policies governing M&O contractor procurements.

Contractor's Actions Cost the Government Millions of Dollars

In December 1987, a DOE IG report stated that E. I. Du Pont De Nemours and Company, then the M&O contractor responsible for operating DOE's Savannah River Plant (now named the Savannah River Site), repeatedly ignored the recommendations of DOE's Savannah River Operations Office against sole-source procurements.[5] The IG estimated that at least $10 million could have been saved annually if the contractor had obtained competition for procurements costing $100,000 or less. The IG also observed that 36 years should have been sufficient time for the contractor to develop and implement standard practices and procedures ensuring an efficient and effective procurement process.

[5]Sole-Source Procurements by E. I. Du Pont De Nemours and Company for the Department of Energy's Savannah River Plant (DOE/IG-0246, Dec. 2, 1987).

DOE's Controls Over Contract Expenditures Need Strengthening

In an August 1987 report, we said that, because of an historical philosophy of "least interference," DOE exercises little control over its M&O contractors' procurement activities.[4] As a result, DOE has little assurance that its contractors are adequately stressing competition in subcontracting and are reasonably protected against the occurrence of kickbacks.

Regarding competition in subcontracting, we said that DOE does not know whether its M&O contractors are ensuring that goods and services are obtained fairly and at the most reasonable prices. That is, although DOE requires its contractors to obtain competition and report on their success, DOE has (1) not established a common definition of competition, (2) waived its own requirement that contractors publish procurement notices for proposed contracts over $100,000, and (3) not regularly reviewed two categories of contractors' procurements that it exempted from competition. DOE also provides no specific procedures for contractors to follow, such as conducting and documenting thorough market searches for potential competitors.

In our role in deciding bid protests, we have held that contractors who operate a federal facility and who are 100-percent federally funded, although not legally required to do so, should follow the "federal norm" in their subcontracting activities. These are basic principles governing the awarding of government contracts that include following the requirement of the Competition in Contracting Act of 1984, as amended, to publish a notice in the Commerce Business Daily of the intent to procure goods and services valued at more than $25,000. DOE requires publication for procurements above $100,000 but waived even this requirement for the five contractors reviewed in the August 1987 report. Two of these five—the University of California's operation of the Los Alamos Laboratory and the Sandia Corporation's operation of the Sandia National Laboratory—are major contractors on the Yucca Mountain project.

Also, we said that because DOE had not established a uniform definition of competition, it is impossible for DOE managers and auditors to assess or compare the adequacy of M&O contractors' subcontracting activities. Further, we said that DOE does not make clear what it expects contractors to accomplish nor does it emphasize the importance of competition.

[4]Energy Management: DOE Controls Over Contractor Expenditures Need Strengthening (GAO/RCED-87-166, Aug. 28, 1987).

pending as of July 14, 1989. Although DOE continued negotiations with BSMI over final details of the contract while the lawsuit was pending, DOE cannot award the contract to BSMI, and BSMI cannot perform any work, until the preliminary injunction is lifted. If the court rules against DOE, DOE will have to conduct a new competitive procurement. A DOE official estimated that this process would cause a delay in the awarding of the contract of at least 1 year.

Legal Risks of Management and Operating Contract Identified by DOE's General Counsel

The DOE Undersecretary decided to issue a management and operating-type contract for the procurement after considering opposing views of DOE's General Counsel and its procurement office.

In a May 19, 1987, memorandum to the Directors of OCRWM and DOE's Procurement and Assistance Management Office, DOE's General Counsel commented on the legal risks involved in authorizing the use of an M&O contract for this procurement. He said that since this procurement did not involve the management of a government-owned or -controlled facility, but rather coordination of contractors, it might not meet the criteria for an M&O contract. The General Counsel expressed concern about whether DOE's use of M&O contracts might be reviewed if a suit questioning the propriety of this M&O contract was successful.

More specifically, the General Counsel said that it is questionable whether the use of an M&O contractor in this situation would meet the requirements of Subpart 17.6 of the Federal Acquisition Regulations (FAR). He stated that

"The definition of an M&O contract requires that the government contract for the 'operation, maintenance, or support, on its behalf of a Government-owned or controlled research, development, special production, or testing establishment wholly or principally devoted to one or more major programs of the contracting Federal agency.' (FAR section 17.601)."

Further, he said that under the proposed procurement the contractor would not operate, manage, or support any particular facility for at least 10 years. The General Counsel suggested that a cost-reimbursement support services contract or a research and development contract might be more appropriate than an M&O-type contract.

The position of DOE's procurement office, however, was that only an M&O contract would permit the contractor to accomplish the range of work needed under the nuclear waste management system. While conceding

TESS' suit alleges that DOE did not conduct a proper competition for this procurement. Specifically, TESS alleges that three members of the DOE Source Evaluation Board, a DOE board established to oversee the development of this procurement and an evaluation of proposals, had conflicts of interest because they had worked for member companies of the team winning the bid. TESS alleged, for example, that the board chairman's participation in the development of the request for proposals, in meetings concerning the proposed contract, and in formulating the statement of work within 1 year following his termination of employment with the Science Applications International Corporation, a BSMI member, is a violation of a conflict-of-interest statute (42 U.S.C. 7216). The applicable section of this statute states the following:

"For a period of one year after terminating any employment with any energy concern, no supervisory employee shall knowingly participate in any Department proceeding in which his former employer is substantially, directly, or materially involved, other than in a rule-making proceeding which has a substantial effect on numerous energy concerns." (Underscoring supplied.)

One of the principal issues dealt with at the hearing is whether the former DOE attorney who approved the chairman's involvement in the procurement erred in finding that Science Applications was an "energy concern" within the meaning of the statute. The attorney testified that she had found that the company was an "energy concern" in this particular instance; however, she had found that it was not in a later case.

In commenting on the facts of this report, a DOE official said that the former DOE attorney and another DOE attorney testified that the initial finding that Science Applications was an "energy concern" was based on a cursory review whereas the finding that it was not was based on a more extensive analysis. Also, he said that the DOE attorneys testified that the latter finding was confirmed by a March 1989 review by DOE's ethics official. Further, the DOE attorneys testified that in their opinion the conflict-of-interest statute had not been violated because the 1-year term prescribed therein had expired before Science Applications had become substantially, directly, or materially involved in the proceeding.

TESS also questioned the large number of contracts existing between DOE and various members of the BSMI team and argued that conflicts of interest created by such contracts were not considered by the board. Further, TESS raised questions about whether the fact that Science Applications already held a DOE contract influenced this procurement decision. Science Applications, a member of the BSMI team, holds both a contract for

the necessary design, development, engineering, and related activities needed to develop the waste management system, (2) integrate the work of the many participating contractors (including those at the then three candidate sites), and (3) integrate future efforts following site selections. According to a DOE official, OCRWM will continue to perform all those federal management functions (such as setting policy) that cannot, under law and DOE regulations, be transferred to a contractor.

DOE issued a request for proposals on October 5, 1987, seeking such a contractor. The request sought proposals that would result in a 10-year management and operating contract with a 5-year renewal option. The value of the contract was estimated at an average cost of $100 million per year.

Although the 1987 amendments to the act substantially reduced the program's scope, DOE determined that a need still existed for a systems contractor to integrate the efforts of the many contractors working on the repository and other program activities to ensure that a more cohesive and fully integrated technical product is delivered to OCRWM for its review and approval. Accordingly, DOE reissued the request for proposals in amended form on February 25, 1988. DOE still expects the contract cost to average $100 million a year but expects the cost to be offset, at least in part, by elimination and/or reduction of work now done by existing contractors through a transfer of work to the new M&O contractor over an 18-month transition period. Thus, program costs will not be increased by the full amount of the estimated cost of the new contract.

On the basis of its analysis of three proposals received, DOE announced, on December 9, 1988, the selection of a proposal from Bechtel Systems Management, Inc. (BSMI), a new operating company of Bechtel Group, Inc., of San Francisco, California. In addition to Bechtel, seven companies make up the BSMI team. The names and functions of the seven are listed below:

- Westinghouse Electric—Nuclear Regulatory Commission licensing and Environmental Protection Agency regulatory requirements;
- Battelle Memorial Institute—systems engineering;
- Science Applications International Corporation—technical development services;
- Parsons, Brinckerhoff, Quade, and Douglas—underground repository design;
- Dames and Moore, in conjunction with Shannon and Wilson—management of site characterization activities; and

Issues Concerning the Contract for Managing and Operating Nuclear Waste Program

Background

The Nuclear Waste Policy Act of 1982 (NWPA) established a federal program and policy for high-level radioactive nuclear waste management. NWPA set forth a detailed process and schedule whereby the Department of Energy (DOE) would develop, locate, construct, and operate one nuclear waste repository, and select a site for a second repository. The act also required DOE to (1) submit a proposal to the Congress on the need for, and feasibility of, a monitored retrievable storage (MRS) facility, (2) assume responsibility for transporting nuclear waste from reactors to federally owned storage and/or disposal facilities, and (3) consult and cooperate with states and Indian tribes to promote their confidence in the program's safety.

DOE was in the process of characterizing (investigating) three candidate sites for the first nuclear waste repository when, in December 1987, the Congress amended the act.[1] The amendments significantly reduced the scope of the program by (1) limiting site characterization activities for the first repository to Yucca Mountain, Nevada, and (2) postponing the search for a second repository site for at least 20 years. Also, the amendments authorized development of an MRS facility but voided DOE's earlier choice of a site for an MRS facility in Oak Ridge, Tennessee. Finally, the amendments established the Monitored Retrievable Storage Review Commission to study the need for an MRS facility and report its findings to the Congress on June 1, 1989. The Congress subsequently extended this reporting date to November 1, 1989.

Program Administration

The NWPA created the Office of Civilian Radioactive Waste Management (OCRWM) within DOE and gave it overall responsibility for program administration. The management structure devised to carry out the program is consistent with DOE's overall philosophy of having program planning, guidance, and control handled by DOE headquarters and project execution handled by program offices established within DOE operations (field) offices. Thus, at the headquarters level, OCRWM exercises overall project management and control, while the Yucca Mountain Project Office (YMPO), within the jurisdiction of the Nevada Operations Office, is responsible for the day-to-day management of the Yucca Mountain project.[2] The Nevada Operations Office performs a variety of management and administrative functions for YMPO, including contract administration, accounting, budgeting, and procurement.

[1] Nuclear Waste Policy Amendments Act of 1987 (P.L. 100-203).

[2] The operations office delegated limited contractual authority over Nevada contractors to the project office manager at the Yucca Mountain site.

Contents

Abbreviations

BSMI	Bechtel Systems Management, Inc.
DOE	Department of Energy
FAR	Federal Acquisition Regulations
GAO	General Accounting Office
IG	Inspector General
M&O	management and operating
MRS	monitored retrievable storage
NWPA	Nuclear Waste Policy Act
OCRWM	Office of Civilian Radioactive Waste Management
RCED	Resources, Community, and Economic Development Division
TESS	TRW Environmental Safety Systems, Inc.
YMPO	Yucca Mountain Project Office

from DOE regulations, then the contract itself constitutes formal DOE recognition and approval of the deviation.

Sandia, a management and operating contractor responsible for research and development relating to nuclear weapons and energy, works on the Yucca Mountain project. In commenting on the facts of this report, DOE officials said that Sandia's work on Yucca Mountain accounts for only a small portion of its total contract with DOE. Also, they said that DOE is currently studying Sandia's salary structure.

Observations

The proposed management and operating contract for the civilian nuclear waste program is likely to substantially affect program operations and costs. What the effects will be, however, cannot be determined at least until DOE has completed the transfer of some ongoing work by other contractors to the new management and operating contractor. Thus, a major concern worth watching is the degree to which the selected contractor replaces, or possibly duplicates, the efforts now being carried out by DOE's current contractors.

Whether the contract will result in a more efficient and effective program is, at this time, an open question. The contract has, however, required OCRWM officials to divert their attention from program operations to develop the contract proposal and participate in the legal proceedings resulting from the bid protest. This situation could continue if DOE has to conduct a new procurement as a result of an unfavorable court decision.

Finally, we and the Inspector General have reported on problems and issues involving DOE's administration of management and operating contractors, including some companies who participate in the nuclear waste program. Many of the resultant recommendations, however, remain outstanding. We believe that the implementation of these recommendations could help ensure that the nuclear waste program is operated in a more cost-effective manner.

Methodology

To obtain information on DOE's contracting procedures, we interviewed officials from DOE's Office of Procurement Operations about the request for proposals for the waste management program contractor and on general contracting issues at DOE. We also reviewed selected contract files, including the request for proposals.

required. After reviewing the opposing arguments, DOE's Undersecretary decided in favor of a management and operating contract.

GAO and DOE's Inspector General Identified Problems With DOE's Management of Contractors

In earlier reviews, we and DOE's Inspector General identified some problems and raised some issues regarding DOE's policies and procedures for administering management and operating contracts. The identified problems and issues are applicable to the nuclear waste program because several of the major contractors working on Yucca Mountain operate under this type of contract. Also, this type of contract will be used for the proposed systems engineering, development, and management contract. DOE action on the recommendations that we and the Inspector General made could help ensure that applicable contractors use the competitive process to full advantage and that the salaries of contractor personnel are maintained at reasonable levels.

DOE Controls Over Contractor Expenditures Need Strengthening

In August 1987, we reported that DOE exercises little control over the procurement activities of its management and operating contractors.[1] We said that DOE does not know whether its management contractors are ensuring that procurements are made at reasonable prices because it has (1) not established a common definition of competition, (2) waived its requirement that contractors publish procurement notices for proposed contracts over $100,000, and (3) not regularly reviewed two categories of contractors' procurements that are exempted from the contractual requirement that goods and services be obtained through competition. DOE also provides no specific procedures for contractors to follow, such as conducting and documenting market searches for potential competitors.

DOE took some actions, such as reviewing one of the two categories of procurements, but disagreed with our other recommendations to (1) require contractors to publish notices in the Commerce Business Daily for procurements over $100,000, (2) establish standard procedures for management contractors to follow in seeking competition for procurements, and (3) establish minimum procedures to implement the Anti-Kickback Enforcement Act of 1986.

A basic disagreement between DOE and us deals with the issue of whether DOE management and operating contractors should follow the

[1] Energy Management: DOE Controls Over Contractor Expenditures Need Strengthening (GAO/RCED-87-166, Aug. 28, 1987).

Management, Inc. Bechtel Systems is a new operating company of Bechtel Group, Inc., and is to be joined by seven other firms that will be responsible for specific aspects of the program.

The contract that DOE intends to award is significant for two reasons. First, the contract represents a major change in the way the waste program will be operated in that the contractor will perform many of the functions now performed by its existing contractors. Second, it is expected to cost an average of about $100 million per year over a 10-year period, which will be offset, at least in part, by the transfer of functions to the new contractor.

Because of the size and significance of the management and operating contract and your Committee's interest in controlling program costs, this report discusses (1) the status of a legal challenge to DOE's award decision by an unsuccessful bidder, (2) concerns raised by DOE's General Counsel about the legal risks involved in using a management and operating-type contract, and (3) previous audit findings of our office and of DOE's Inspector General relating to DOE's administration of contracts for managing and operating DOE's nuclear facilities.

Some of our previous audit findings and findings of the Inspector General center on DOE's overall policies and procedures in managing contractors and thus are also relevant to DOE's nuclear waste program. Further, some of the contractors discussed in the audit reports participate in the nuclear waste program.

Pending Lawsuit Could Delay Issuance of Contract

The pending lawsuit could, if successful, delay the award of the management contract by 1 year, according to DOE officials. This delay could be disruptive to the program and require the continued diversion of OCRWM's top-level staff from other responsibilities.

The bid protest and motion to enjoin DOE from awarding the contract to Bechtel Systems was filed with the U.S. Claims Court on December 23, 1988. The plaintiff alleged that, among other things, DOE's award decision was not in accordance with the evaluation criteria in the request for proposals and that violations of conflict-of-interest laws and regulations had occurred. One of the plaintiff's principal arguments at the hearing on its motion is that a senior OCRWM official was significantly involved in the procurement within 1 year of his termination of employment with the Science Applications International Corporation, a Bechtel Systems Management team member, and that because Science Applications is an