DOE/IG-0521

AUDIT REPORT

ADMINISTRATION OF SMALL BUSINESS INNOVATION RESEARCH PHASE II GRANTS

AUGUST 2001

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

DEPARTMENT OF ENERGY
Washington, DC 20585

August 31, 2001

MEMORANDUM FOR THE SECRETARY

FROM: Gregory H. Friedman (Signed)
Inspector General

SUBJECT: INFORMATION: Audit Report on "Administration of Small Business Innovation Research Phase II Grants"

BACKGROUND

The Small Business Innovation Development Act of 1982 (P.L. 97-219) established the Small Business Innovation Research (SBIR) Program to assist small businesses in developing new ideas and technology. Under this Program, the Department of Energy sets aside 2.5 percent of its research and development budget for grants to small businesses, using a phased approach. Phase II SBIR grants, which were the focus of this audit, enable small businesses to evaluate commercial potential of new ideas and technology, often culminating in a prototype product or process that can be demonstrated to potential investors. Currently, the Department awards about $60 million annually in Phase II grants. Under the procedures for Phase II grants, small businesses can be reimbursed only for their actual costs incurred in accordance with the Federal Acquisition Regulation. Grant applicants can, at their discretion, propose to contribute a share of total project cost and, when doing so, receive extra credit in the grant evaluation process.

Historically, the Office of Inspector General has recognized grants administration as a significant management challenge within the Department of Energy. Hence, the objective of the audit was to determine whether the Department obtained assurance that costs claimed by SBIR Phase II grantees were incurred in accordance with acquisition regulations and, where applicable, met cost sharing requirements.

RESULTS OF AUDIT

We found that the Department had not appropriately verified that all costs claimed by SBIR Phase II grantees were, in fact, allowable and were used for developing the specific innovations described in the relevant grant documents. The Department generally limited its cost reviews to pre-award evaluations of the costs proposed in the applications submitted by grantees; it did not, as we would have expected, place sufficient emphasis on post-award reviews of actual costs. As a result, we found that the Department reimbursed grantees for questionable costs --- for example, three grantees did not provide any support for about $2.4 million in claimed costs. Further, the Department did not verify that grantees fully contributed their portion of cost sharing, which were requirements of the grant. We noted that ten SBIR Phase II grantees reported providing $2.4 million less in cost sharing than required by the terms of the relevant grant agreements.

We support the objectives of the SBIR program, recognizing the fact that the use of the grant instrument, including cost-sharing agreements, carries certain inherent vulnerabilities. We are concerned, however, that the shortcomings identified in this audit relating to safeguards in the administration of SBIR grants could ultimately undermine the viability of the program. The report included several recommendations designed to address these issues.

MANAGEMENT REACTION

Management concurred with the finding and recommendations. We were informed that corrective actions had been initiated.

Attachment

cc: Deputy Secretary
Under Secretary for Energy, Science and Environment
Administrator, National Nuclear Security Administration

ADMINISTRATION OF SMALL BUSINESS INNOVATION RESEARCH PHASE II GRANTS

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OVERVIEW

INTRODUCTION AND OBJECTIVE

The Small Business Innovation Development Act of 1982 (P.L. 97-219) established the Small Business Innovation Research (SBIR) Program to stimulate technological innovation, use small businesses to meet Federal research and development (R&D) needs, and increase private sector commercialization of innovations derived from Federal R&D. Subsequent legislation has extended the Program to September 30, 2008. Under the Program, Federal agencies are required to set aside 2.5 percent of their R&D budgets for grants to assist small businesses in developing new ideas and technology. Over the past 18 years, the Department of Energy (Department) has funded over $800 million for the SBIR Program. The Department will fund about $87 million for the program in Fiscal Year 2001.

The SBIR Program is a 3-phase award process. In Phase I, the Department issues competitive grants up to $100,000 to small businesses for exploring the technical merit or feasibility of new ideas and technology. In Phase II, follow-on grants of up to $750,000 enable small businesses to continue the R&D, which often culminates in a prototype product or a process that can be demonstrated to potential investors. Approximately two-thirds of SBIR funds awarded by the Department, currently about $60 million per year, were for Phase II grants. In Phase III, small businesses can further develop or commercialize their innovations, but no SBIR funds can be used for Phase III.

Accountability differs between Phase I and Phase II grants. For Phase I, grantees generally do not have to account for how their funds were spent. However, in Phase II, grantees are subject to tighter financial accountability as grantees can be reimbursed only for their actual costs incurred and costs must be in accordance with the allowable cost provisions of the Federal Acquisition Regulation (FAR). Also, in Phase II, some applicants propose to contribute a share of the costs, and these applicants receive extra credit in the Phase II proposal evaluation process.

The Department's SBIR Program Office is responsible for overseeing the preparation of grant solicitations and selection of grantees. After grantees are selected, the Department's Chicago Operations Office (Chicago) and Oakland Operations Office (Oakland) are tasked with negotiation, award, administration, and closeout of the grants. In parallel, a Technical Program Manager from one of the Department's technical programs is assigned to monitor the technical aspects of the grant.

The Office of Inspector General (OIG) issued a prior report and has two other audits in progress regarding grant administration. In December 1997, the OIG issued Report DOE/IG-0415, *Audit of Departmental Receipt of Final Deliverables for Grant Awards*. The audit determined that many grantees did not provide final technical and financial reports. Many of these deliverables were not received because the Department did not effectively implement existing procedures or establish other mechanisms to ensure that grantees fulfilled their obligations. In addition, the OIG has audits in progress at Oakland and at the Albuquerque Operations Office to determine whether deliverables were received for science and technology grants.

The objective of this audit was to determine whether the Department obtained assurance that costs claimed by SBIR Phase II grantees were incurred and cost sharing requirements were met.

CONCLUSIONS AND OBSERVATIONS

The Department did not obtain assurance that costs claimed by SBIR Phase II grantees were incurred and cost sharing requirements were met. Specifically, the Department did not verify through audits, desk reviews, or other means that costs claimed by grantees were incurred for researching and developing the specific innovations described in the grants and were allowable. Likewise, the Department did not verify that grantees contributed the required amounts of cost sharing. This occurred because the Department did not give sufficient attention to verifying that costs claimed were allowable and cost sharing requirements were met. As a result, the Department reimbursed grantees for questionable costs and did not detect cost sharing shortfalls. For example, three grantees did not provide support for $2.4 million in claimed costs, and 10 grantees reported $2.4 million less cost sharing than required by grant terms.

Management should consider the issues discussed in this audit report when preparing its yearend assurance memorandum on internal controls.

Signed
Office of Inspector General

Department Did Not Review Costs and Cost Sharing

The Department did not obtain assurance that costs claimed by SBIR Phase II grantees were incurred and cost sharing requirements were met. Specifically, Chicago and Oakland did not obtain audits or perform reviews of costs and cost sharing claimed by grantees for SBIR Phase II grants that were completed between October 1998 and December 2000.

Chicago and Oakland did not verify through audits, desk reviews, or other means that SBIR Phase II grantees' claimed costs had been for researching and developing the specific innovative ideas and technologies described in the grants and were allowable. For the 47 SBIR Phase II grants we reviewed, audits were not obtained and desk reviews were not performed. Furthermore, Chicago and Oakland did not obtain copies of available audit reports or request audits of grantees where Federal agencies had routinely performed audits. For 27 of the 47 grants, Federal agencies had performed audits and issued reports on the grantees. For example, the Defense Contract Audit Agency had issued audit reports recommending final indirect cost rates for several grantees. These audits could have assisted Chicago and Oakland in reviewing claimed costs.

Chicago's policy was to make a final cost allowability determination for each grant after the grantee submitted final cost data and prior to final closeout. The 40 Chicago grants we reviewed had not yet been closed out even though they had been completed for 8 to 34 months. For these grants, we found no evidence that claimed costs had been reviewed, and a cost allowability determination was made for only one of the grants. For 23 of the grants, the grantees had submitted final cost data, but we found no evidence that audits or desk reviews were initiated. For the remaining 17 grants, Chicago had not obtained final cost data from the grantees although the grant agreements required grantees to submit final cost data within 90 days after grant completion.

In addition, Chicago and Oakland did not perform reviews to determine whether grantees contributed required cost sharing. For SBIR Phase II grants that contained cost sharing, grantees agreed to share a percentage of costs, contribute a fixed dollar amount, or make an in-kind contribution such as use of equipment or a facility. Of the 47 SBIR Phase II grants reviewed, 36 required grantees to share costs. For these grants, expected cost sharing totaled about $9.4 million. In some cases, the grantee's agreement to share costs was a determining competitive factor in the Department’s decision to award the grant. Nonetheless, the Department paid grantees without determining whether grantees contributed required cost sharing.

Grantees Should Be Held Accountable

The Department's *Guide to Financial Assistance*, dated April 1996, charges contracting officers with determining allowability of costs claimed by grantees and ensuring that grantees comply with all terms and conditions of their grants. The guide requires a closeout process to be performed after the grant is completed in order to ensure that all administrative actions are accomplished. Financial reconciliations and cost reviews are normally part of this closeout process. The guide states that awarding offices should have a consistent format and basic procedures for their closeout process and grant files should contain sufficient information on which to base closeout decisions.

Likewise, Chicago's closeout procedures covering grants, *Closeout of Financial Assistance Instruments*, dated August 1999, require the contracting officer to make a final determination concerning allowability of total costs claimed by the grantee. These procedures also require the contracting officer to determine whether an audit is warranted and to rely on available audit reports.

Reviews of claimed costs and cost sharing are the basis for determining that SBIR Phase II funds were paid to grantees only for reimbursement of allowable costs and grantees contributed the agreed-upon cost sharing. SBIR Phase II grants are subject to the FAR, which provides the principles for determining allowable costs. The FAR states that for a cost to be allowable, it must be adequately supported by accounting records and be incurred directly for or be allocable to the work being performed. In addition, the cost must be reasonable and comply with grant terms, applicable cost principles, laws and regulations, and generally accepted accounting principles and practices appropriate to the particular circumstances.

Department Did Not Emphasize Post-Award Cost Reviews

During the grant closeout process, the Department did not give sufficient attention to verifying that costs claimed were allowable and cost sharing requirements were met. Although Chicago had established grant closeout procedures, its procedures did not address cost sharing, and Chicago did not fully implement its procedures. For example, for the 39 grants we reviewed that were in Chicago's closeout process, Chicago had not determined the need for an audit, obtained available audit reports, or, in some cases, obtained the grantee's final cost data even though the grants were completed 8 to 34 months before our review. Moreover, Oakland's grant closeout process did not include procedures for post-award reviews of claimed costs and cost sharing.

Chicago and Oakland generally limited their cost reviews to pre-award evaluations of grantees' proposed costs. These pre-award reviews are an essential component of the grant award process; however, attention was not given to post-award reviews of actual costs and cost sharing.

Also, the Department did not establish performance measures under the Government Performance Results Act of 1993 (GPRA) that were directly related to grant administration and reviews of costs and cost sharing for the SBIR Program.

Department Did Not Detect Questionable Costs and Cost Sharing Shortfalls

The Department did not detect questionable costs and cost sharing shortfalls. Our review of grant files and interviews with grantees disclosed instances when the Department reimbursed grantees for questionable costs and grantees did not contribute required cost sharing. For example, three grantees did not provide support for claimed costs, totaling about $2.4 million. Another grantee claimed general and administrative expenses (G&A) at a 53-percent rate, which was significantly higher than the 8.5-percent rate used for estimating G&A costs in the grant proposal. Consequently, the grantee claimed $180,000 more G&A than was estimated; thus, less funds were spent directly on research and development.

In addition, cost sharing shortfalls, totaling about $2.4 million, were identified for 10 grantees which had agreed-to cost sharing. For example, three grantees reported no cost sharing even though their grants required cost sharing ranging from $65,000 to $288,000. The other seven grantees reported less cost sharing than agreed to, could not support the reported cost sharing, or claimed inappropriate items as cost sharing such as a loss on a commercial contract and equipment that had been paid for by another Federal agency. As a result of cost sharing shortfalls, the Department paid for a larger portion of cost than had been agreed to in the grants.

In our opinion, reviews of claimed costs and cost sharing would have alerted the Department to these questionable costs and cost sharing shortfalls.

RECOMMENDATIONS

We recommend that, for SBIR Phase II grants, the Managers of the Chicago and Oakland Operations Offices, in coordination with the SBIR Program Manager:

1. Resolve the cost sharing shortfalls and questionable costs identified in our audit and recover costs determined to be unallowable;

2. Implement grant closeout procedures to include verification that costs claimed by grantees are allowable and cost sharing requirements are met; and,

3. Establish performance measures, in accordance with GPRA, that are relevant to post-award reviews of costs and cost sharing.

MANAGEMENT REACTION

Management concurred with the finding and recommendations. Chicago immediately initiated corrective actions, and Oakland plans to initiate corrective actions in October 2001.

AUDITOR COMMENTS

Management's comments are responsive to the recommendations.

Appendix

SCOPE

The audit was performed from September 2000 to May 2001 at the Office of the Program Manager for the Small Business Innovation Research (SBIR) Program, the Chicago and Oakland Operations Offices, and selected SBIR Phase II grantees. The audit covered 47 of the 190 SBIR Phase II grants completed from October 1998 through September 2000, valued at about $136 million. Of the 47 grants, 40 were administered by Chicago and 7 by Oakland.

METHODOLOGY

To accomplish the audit objective, we:

- Reviewed laws and regulations relating to the SBIR Program;
- Interviewed Department of Energy personnel regarding the processing and administration of SBIR grants;
- Interviewed representatives of selected SBIR Phase II grantees regarding claimed costs and cost sharing;
- Reviewed SBIR Phase II files and supporting records for selected grantees; and,
- Assessed performance measures relating to the SBIR Program.

The audit was performed in accordance with generally accepted Government auditing standards for performance audits. It included tests of internal controls and compliance with laws and regulations to the extent necessary to satisfy the audit objective. Because our audit was limited, it would not necessarily have disclosed all internal control deficiencies that may have existed at the time of our audit. In performing this audit, we did not rely significantly on computer-generated data.

An exit conference was held with the Oakland Operations Office on August 29, 2001. However, the Chicago Operations office waived an exit conference.

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