DATE OCT 1 2 1982

REPLY TO ATTN OF

SUBJECT Assignment of Responsibility for Small Business Innovation Research Program Management

TO Director of Energy Research

This is to advise you that the Secretary has approved assignment of the subject program management responsibility to the Office of Energy Research. Related functions will be performed, as outlined in the attached Action Memorandum, by Management and Administration (Procurement and Assistance Management—MA-90) and by the program management organizations which have research and development funds as defined under provisions of the Small Business Innovation Development Act (P.L. 97-219) of July 22, 1982.

My staff is available to provide any assistance, as necessary, to implement the Secretary's decision.

for

William S. Heffelfinger Assistant Secretary Management and Administration

Attachment

cc:
Secretarial Officers Heads of Field Organizations

2-874
U.S. DEPARTMENT OF ENERGY

memorandum

SEP 27 1982

REPLY TO

ATTN OF

MA-92 (Koser)

SUBJECT

SBIR Action Memorandum

Assistant Secretary
Management and Administration

TO

THRU: Director, Procurement and Assistance
Management Directorate

Attached hereto is an Action Memorandum for your signature to the Secretary
concerning the Department of Energy's Implementation of the Small Business

Please note that reference to the nonconcurrence by Joseph J. Tribble, CE-1,
is made at the bottom of page two. A copy of his memorandum is included as
Attachment E, which indicates that distribution was made to those offices
which had already concurred on the Action Memorandum. In our subsequent
contacts with GC, NE, FE, EP and ER representatives, they have indicated that
they will abide by their original concurrences and do not desire to make a
change.

John W. Shepard
Director
Office of Small and Disadvantaged
Business Utilization

Attachment
ACTION: Department of Energy Implementation of the Small Business Innovation Development Act (Public Law 97-219) of July 22, 1982

The Secretary

PROBLEM:

To which office shall the Department assign the responsibility for program management?

BACKGROUND:

The Small Business Innovation Development Act of 1982 amended the Small Business Act to strengthen the role of small, innovative firms in federally funded research and development (R&D). Beginning in fiscal year 1983, Federal agencies having R&D budgets in excess of $100 million must conduct a Small Business Innovation Research (SBIR) Program which will result in awards to small business concerns through a uniform and highly structured process specified in the Act.

The law mandates a 3-phase research and development program leading to commercialization. Additional funds are not made available; we must use existing R&D budgets.

Fixed percentages of extramural R&D outlays are to be spent with small businesses. The DOE R&D base excludes atomic energy defense programs. Starting with fiscal year 1983, we must spend a minimum of .2 percent of our base or an estimated $4.9 million; assuming a constant R&D base, this increases to 1.25 percent or $30.9 million in fiscal year 1986 and remains at that percentage in subsequent years.

A Task Force, which was convened to plan the implementation of the law, agreed that:

1. Procurement-related issues not of a technical program nature are clearly the responsibility of the DOE Procurement Directorate.

2. All small business issues, relating to Sections 8 and 15 of the Small Business Act, are the statutory responsibility of the Office of Small and Disadvantaged Business Utilization (OSDBU). (See Attachment A for responsibilities of 1 and 2 above.)

3. Establishment of a standing advisory panel would provide a resource base useful to program execution. Membership on the panel would include outlay offices, the Office of General Counsel, Management and Administration, and be chaired by the SBIR Program Manager.

DISCUSSION:

Analysis of the number and importance of tasks mandated under the law required the immediate consideration of two issues:
1. **Multiple Program Coordinators versus a Single Program Manager**

**Option 1--Multiple Program Coordinators (Program Offices)**

For: Funds associated with program offices. No change in how we solicit, evaluate, and make awards.

Against: No program advocate. Lack of control and overall guidance. Difficult for the small business community. Inefficient, decentralization of functions.

**Option 2--Single Program Manager (called SBIR Program Manager)**

For: Single point of contact responsible for overall achievement. Integrate technical topics into one solicitation. Prepare uniform implementing guidance and program instructions DOE-wide. Represent Department as required. Track proposal status. Provide information for required reports. Chair SBIR Advisory Panel.

Against: Requires single coordinated solicitation and selection. May require transfer of funds from individual program offices under appropriations transfer or reprogramming.

After consideration of the above factors, it is apparent that a single SBIR Program Manager is necessary to effectively manage execution of the program. (For amplification of responsibilities for both the Program Manager and program offices, see Attachment B.)

2. **Organizational Placement--Analysis of the missions and functions suggests three principal organizations which should be considered as the SBIR Program Manager.**

**Option 1--Assistant Secretary, Management and Administration (Procurement and Assistance Management Directorate)--For amplification, see Attachment C.**

Public Law 97-219 mandates a federally supported, high technology program for small business concerns, under which implementation and placement can best be accomplished by a technology-based outlay office with crosscutting R&D responsibilities. For this reason, the Management and Administration option has been considered and rejected.

**Option 2--Conservation and Renewable Energy (Office of State and Local Assistance Programs, Small Scale Technology Branch)--For amplification, see Attachment D.**

Since the preponderance of their experience in the Energy Related Inventions and Appropriate Technology Programs is in other than high technology programs, Option 2 is not recommended.

See Attachment E for a copy of nonconcurrence by Assistant Secretary Joseph J. Tribble regarding this Action Memorandum.
Option 3--Office of Energy Research (OER), Office of Basic Energy Sciences, Division of Advanced Energy Projects--For further information, see Attachment F.

Since OER: 1) is the focal point in the Department for R&D strategies, plans, policy, and technology programs in all energy disciplines covered by Public Law 97-219; 2) controls almost one-half of the entire departmental R&D budget; and 3) represents the Department in Federal R&D coordination activities, including the President's Council for Science, Engineering and Technology, OER is considered to be the best choice as Program Manager.

RECOMMENDATION:

That the Secretary assign primary responsibility for management of the SBIR Program to the Director, OER.

William S. Heffelfinger
Assistant Secretary
Management and Administration

6 Attachments

APPROVED: 

DISAPPROVED: 

DATE: OCT 4 1982


Concurrence: GC-1
R. Tenney Johnson

CP-1
Robert L. Odie, Jr.

NE-1
Shelby T. Brewer

FE-1
Jan W. Mares

CE-1
Joseph J. Tribble

EP-1
William A. Vaughan

ER-1
Alvin W. Trivelpiece

X Concur Nonconcur

X Concur Nonconcur

X Concur Nonconcur

Concur

Concur

Concur

Concur

Concur

X Concur Nonconcur
Functions Expected to be performed by the Procurement and Assistance Management Directorate (MA-90)

1. Provide a representative to the Small Business Administration to discuss and provide comments concerning implementation of the law.

2. Conduct Small Business Innovative Research liaison with other Government agencies such as the Small Business Administration and the Department of Commerce.

3. Coordinate a schedule for release of program solicitations with the Small Business Administration.

4. Include goaling for SBIR in annual procedure.

5. Supply names of small businesses/disadvantaged businesses from the Procurement Automated Source System (PASS).

6. Provide necessary information and reports to Congressional committees, the Small Business Administration, the Department of Commerce, and the Office of Science and Technology Policy.

7. Issue appropriate DOE procurement regulations and guidance on implementation of the law.

8. Collect data for Procurement Automated Data System and provide information for reports as required.

9. Award contracts, grants or cooperative agreements, as appropriate, pursuant to SBIR solicitations.

10. Provide list of possible sources other than from PASS.
Functions Under the Aegis of the Small Business Innovation Research Program Manager

1. Promulgate uniform program policies and directives for conducting the SBIR Program.

2. Chair SBIR Advisory Panel.

3. Obtain and integrate technical topics from outlay offices.

4. Prepare simplified, standardized program solicitation document.

5. Publicize availability of SBIR funding through the Commerce Business Daily, trade journals, press, and other media releases.

6. Prepare source lists and distribute solicitations (range of 15,000-30,000 solicitation documents).

7. Respond to inquiries from prospective offerors.

8. Represent the Department as official spokesperson on SBIR matters before symposia, associations, and committees of the Congress.

9. Act as receiving point for collection of Phase I and II proposals and distribute for technical evaluation.

10. Maintain automated data file on status of proposals.

11. Provide information for reports to the Small Business Administration, Office of Science and Technology Policy, and testimony for oversight committees of the Congress.

12. Conduct orientation and training program.

13. Provide guidance on sources of venture capital to Phases I and II participants.

14. Follow commercialization progress of participants in Phase III.

15. Repeat solicitation process annually.

Functions Expected to be Performed by Program Offices

1. Recommend and describe topics for inclusion in forthcoming solicitation.

2. Provide funding for SBIR proposals to meet fixed percentages as required by law.

3. Evaluate and recommend proposals for funding, using peer review as appropriate.
4. Generate or provide input to procurement requests for proposals selected for funding.

5. Assign cognizant Contracting Officers' technical representatives for each award.

6. Conduct onsite technical reviews and monitorship, as required.

7. Assign a technical representative as overall point of contact to SBIR Advisory Panel.

8. Incorporate SBIR fixed expenditures in plans to accomplish R&D goals for small business.

9. Participate in goal establishment as required by the Office of Small and Disadvantaged Business Utilization and report achievements.
Option 1--Assistant Secretary, Management and Administration (MA) (Procurement and Assistance Management Directorate)

Pros--

- Statutory responsibility for procurement-related small and disadvantaged business programs; responsible for developing small business sources
- Goaling requirement in Public Law 97-219 is complementary to socio-economic goaling charter in effect since DOE's inception.
- Management responsibility for promulgation of procurement policies, issuance of solicitations, negotiation, award, and administration of award instruments
- Prior experience with administrative management of multi-office solicitations
- MA maintains systems capability to accommodate Small Business Innovation Research input for data collection
- Day-to-day liaison with outlay offices, the Small Business Administration, small and disadvantaged business trade associations, and small business prospective offerors

Cons--

- No personnel possessing expertise in energy technologies
- Limited experience with commercialization
- Little experience in technical proposal evaluation
Option 2—Conservation and Renewable Energy (Office of State and Local Assistance Programs, Small Scale Technology Branch)

Pros--

- Established working relationships with certain other Federal innovation programs, including Small Business Innovation Research programs in the National Science Foundation and the Department of Defense
- Experience in exploring new technical concepts, through the Energy Related Inventions Program (ERIP) and the Appropriate Technology Program
- Experience in areas of commercialization funding and established relationships with sources of venture capital
- Experience in all nonnuclear disciplines
- Ability to handle high volume of inquiries similar to the ERIP
- Small Scale Technology Branch is presently staffed to manage the SBIR Program
- Experience in coordination of nonnuclear proposal evaluations
- Selection of proposals solely on technical merit (excluding all nuclear energy-related disciplines)
- ERIP also has current personnel with expertise in nuclear energy technology
- Ninety-five percent of all grants in ERIP have been awarded to small businesses

Cons--

- Preponderance of experience in other than high technology programs
- Low visibility due to organizational placement

To: HA-92

The attached action memorandum rather summarily dismisses Option 2 - that of placing this responsibility in the Small Scale Technology Branch of Conservation and Renewable Energy. However, if one looks at Attachment D, which lists the pros and cons of this option, there are several important reasons why this option should be considered more carefully.

The objectives of P.L. 97-219 parallel the objectives of the existing Energy Related Inventions Program. This program has been in existence for several years, and staff is now on board and has the experience and the basic knowledge with which to carry out the responsibilities of the Small Business Innovation Development Act (SBIR). The Administration has attempted to eliminate the budget for the Energy Related Inventions Program in the 1983 proposed budget. The information we have from Congress indicates that it is most unlikely that this program will be eliminated in the foreseeable future - one reason being that it is a convenient place to refer constituent inquiries which relate to innovative ideas. If a similar function is located in another office, obviously some of the effort will be duplicative.

The Act (P.L. 97-219) provides for preference to be given to proposals which lead to production contracts within three years. This suggests applied research and technology development. Virtually the entire CE organization has been oriented in this direction. Further, it is likely that most of the proposals will be in other than high technology areas.

Another CE program which we have proposed to eliminate is that of the Office of Industrial Programs. The Congress has emphatically demonstrated that they will not accept this proposal. However, there may be an opportunity to consolidate the efforts of the Office of Industrial Programs with the SBIR program, if they were both in CE. We know of the difficulties in making this kind of consolidation when a change in Congressional Committee responsibility is involved.
For the reasons stated above I would like to ask that those in the concurrence chain of this action memorandum be given an opportunity to review these comments before their final action relative to concurrence is taken. In order to focus additional thought on this decision, we must non-concur with the action memorandum in its present form.

Joseph J. Tribble
Assistant Secretary
Conservation and Renewable Energy

Attachment

cc:
GC-1, R. Tenney Johnson
GC-44, Prentis Cook
CP-1, Robert C. Odle, Jr.
NE-1, Shelby T. Brewer
FE-1, Jan W. Hares
EP-1, William A. Vaughan
ER-1, Alvin W. Trivelpiece
MA-93, David Newman
MA-94, Vince Mason
MA-96, David Ball
MA-20, K. Dean Helms
MA-80, P. Marshall Ryan
Option 3--Office of Energy Research (OER), Office of Basic Energy Sciences, Division of Advanced Energy Projects (AEP)

Pros--

- Experience in exploring new technical concepts
- Selection of proposals solely on technical merit
- Close working relationship with scientists and technologists at leading universities and in industry, who aid in evaluating proposals
- Has crosscutting research and development role DOE-wide
- Experienced in coordination of proposal evaluations
- Approximately one-half of DOE's R&D budget is in OER
- Approximately one-third of AEP R&D funding is with small businesses
- OER serves as a principal point of contact in DOE for research policy planning and coordination relevant to national energy issues

Cons--

- Oriented primarily to basic energy research; the SBIR Program requires that even R&D funded as basic research must demonstrate commercialization potential within two to three years
- Limited experience in commercialization or venture capital funding
An Act

To amend the Small Business Act to strengthen the role of the small, innovative firms in federally funded research and development, and to utilize Federal research and development as a basis for technological innovation to meet agency needs and to contribute to the growth and strength of the Nation’s economy.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

Section 1. This Act may be cited as the "Small Business Innovation Development Act of 1982".

Sec. 2. (a) The Congress finds that—

(1) technological innovation creates jobs, increases productivity, competition, and economic growth, and is a valuable counterforce to inflation and the United States balance-of-payments deficit;

(2) while small business is the principal source of significant innovations in the Nation, the vast majority of federally funded research and development is conducted by large businesses, universities, and Government laboratories; and

(3) small businesses are among the most cost-effective performers of research and development and are particularly capable of developing research and development results into new products.

(b) Therefore, the purposes of the Act are—

(1) to stimulate technological innovation;

(2) to use small business to meet Federal research and development needs;

(3) to foster and encourage participation by minority and disadvantaged persons in technological innovation; and

(4) to increase private sector commercialization innovations derived from Federal research and development.

Sec. 3. Section 9(b) of the Small Business Act is amended—

(1) by striking out "and" at the end of paragraph (2);

(2) by striking out the period at the end of paragraph (3) and inserting in lieu thereof "; and"; and

(3) by adding at the end thereof the following:

"(4) to develop and maintain a source file and an information program to assure each qualified and interested small business concern the opportunity to participate in Federal agency small business innovation research programs;

"(5) to coordinate with participating agencies a schedule for release of SBIR solicitations, and to prepare a master release schedule so as to maximize small businesses' opportunities to respond to solicitations;

"(6) to independently survey and monitor the operation of SBIR programs within participating Federal agencies, and

"(7) to report not less than annually to the Committee on Small Business of the Senate and the Committee on Small Business of the House of Representatives on the SBIR programs
Definitions

"(1) the term 'extramural budget' means the sum of the total obligations minus amounts obligated for such activities by employees of the agency in or through Government-owned, Government-operated facilities, except that for the Agency for International Development it shall not include amounts obligated solely for general institutional support of international research centers or for grants to foreign countries;

"(2) the term 'Federal agency' means an executive agency as defined in section 105 of title 5, United States Code, or a military department as defined in section 102 of such title, except that it does not include any agency within the Intelligence Community (as the term is defined in section 1.4(f) of Executive Order 12333 or its successor orders);

"(3) the term 'funding agreement' means any contract, grant, or cooperative agreement entered into between any Federal agency and any small business for the performance of experimental, developmental, or research work funded in whole or in part by the Federal Government;

"(4) the term 'Small Business Innovation Research Program' or 'SBIR' means a program under which a portion of a Federal agency's research or research and development effort is reserved for award to small business concerns through a uniform process having—

"(A) a first phase for determining, insofar as possible, the scientific and technical merit and feasibility of ideas submitted pursuant to SBIR program solicitations;

"(B) a second phase to further develop the proposed ideas to meet the particular program needs, the awarding of which shall take into consideration the scientific and technical merit and feasibility evidenced by the first phase and, where two or more proposals are evaluated as being of approximately equal scientific and technical merit and feasibility, special consideration shall be given to those proposals that have demonstrated third phase, non-Federal capital commitments; and

"(C) where appropriate, a third phase in which non-Federal capital pursues commercial applications of the research or research and development and which may also involve follow-on non-SBIR funded production contracts with a Federal agency for products or processes intended for use by the United States Government; and

"(5) the term 'research' or 'research and development' means any activity which is (A) a systematic, intensive study directed toward greater knowledge or understanding of the subject studied, (B) a systematic study directed specifically toward applying new knowledge to meet a recognized need; or (C) a systematic application of knowledge toward the production of useful materials, devices, and systems or methods, including design, development, and improvement of prototypes and new processes to meet specific requirements.

"(fX1) Each Federal agency which has an extramural budget for research or research and development in excess of $100,000,000 for
fiscal year 1982, or any fiscal year thereafter, shall expend not less than 0.2 percent of its extramural budget in fiscal year 1983 or in such subsequent fiscal year as the agency has such budget, not less than 0.6 percent of such budget in the second fiscal year thereafter, not less than 1.1 percent of such budget in the third fiscal year thereafter, and not less than 1.25 percent of such budget in all subsequent fiscal years with small business concerns specifically in connection with a small business innovation research program which meets the requirements of the Small Business Innovation Development Act of 1982 and regulations issued thereunder:

Provided, That any Federal agency which has an extramural budget for research or research and development in excess of $10,000,000,000 for fiscal year 1982 shall expend not less than 0.1 percent of its extramural budget in fiscal year 1983, not less than 0.2 percent of such budget in the second fiscal year thereafter, not less than 0.5 percent of such budget in the third fiscal year thereafter, not less than 1 percent of such budget in the fourth fiscal year thereafter, and not less than 1.25 percent of such budget in all subsequent fiscal years with small business concerns specifically in connection with a small business innovation research program which meets the requirements of the Small Business Innovation Development Act of 1982 and regulations issued thereunder:

Provided further, That a Federal agency shall not make available for the purpose of meeting the requirements of this subsection an amount of its extramural budget for basic research or research and development which exceeds the percentages specified herein. Funding agreements with small business concerns for research or research and development which result from competitive or single source selections other than under a small business innovation research program shall not be counted as meeting any portion of the percentage requirements of this subsection.

"(2) Amounts appropriated for atomic energy defense programs of the Department of Energy shall for the purposes of paragraph (1) be excluded from the amount of the research or research and development budget of that Department.

"(c) Each Federal agency required by subsection (f) to establish a small business innovation research program shall, in accordance with this Act and regulations issued hereunder—

"(1) unilaterally determine categories of projects to be in its SBIR program;

"(2) issue small business innovation research solicitations in accordance with a schedule determined cooperatively with the Small Business Administration;

"(3) unilaterally receive and evaluate proposals resulting from SBIR proposals;

"(4) unilaterally select awardees for its SBIR funding agreements;

"(5) administer its own SBIR funding agreements (or delegate such administration to another agency);

"(6) make payments to recipients of SBIR funding agreements on the basis of progress toward or completion of the funding agreement requirements; and

"(7) make an annual report on the SBIR program to the Small Business Administration and the Office of Science and Technology Policy.

"(h) In addition to the requirements of subsection (f), each Federal agency which has a budget for research or research and develop-
ment in excess of $20,000,000 for any fiscal year beginning with fiscal year 1983 or subsequent fiscal year shall establish goals specifically for funding agreements for research or research and development to small business concerns, and no goal established under this subsection shall be less than the percentage of the agency's research or research and development budget expended under funding agreements with small business concerns in the immediately preceding fiscal year.

"(i) Each Federal agency required by this section to have an SBIR program or to establish goals shall report annually to the Small Business Administration the number of awards pursuant to grants, contracts, or cooperative agreements over $10,000 in amount and the dollar value of all such awards, identifying SBIR awards and comparing the number and amount of such awards with awards to other than small business concerns.

"(j) The Small Business Administration, after consultation with the Administrator of the Office of Federal Procurement Policy, the Director of the Office of Science and Technology Policy, and the Intergovernmental Affairs Division of the Office of Management and Budget, shall, within one hundred and twenty days of the enactment of the Small Business Innovation Development Act of 1982, issue policy directives for the general conduct of the SBIR programs within the Federal Government, including providing for—

"(1) simplified, standardized, and timely SBIR solicitations;

"(2) a simplified, standardized funding process which provides for (A) the timely receipt and review of proposals; (B) outside peer review for at least phase two proposals, if appropriate; (C) protection of proprietary information provided in proposals; (D) selection of awardees; (E) retention of rights in data generated in the performance of the contract by the small business concern; (F) transfer of title to property provided by the agency to the small business concern if such a transfer would be more cost effective than recovery of the property by the agency; (G) cost sharing, and (H) cost principles and payment schedules;

"(3) exemptions from the regulations under paragraph (2) if national security or intelligence functions clearly would be jeopardized;

"(4) minimizing regulatory burden associated with participation in the SBIR program for the small business concern which will stimulate the cost-effective conduct of Federal research and development and the likelihood of commercialization of the results of research and development conducted under the SBIR program; and

"(5) simplified, standardized, and timely annual report on the SBIR program to the Small Business Administration and the Office of Science and Technology Policy.

"(k) The Director of the Office of Science and Technology Policy, in consultation with the Federal Coordinating Council for Science, Engineering and Research, shall, in addition to such other responsibilities imposed upon him by the Small Business Innovation Development Act of 1982—

"(1) independently survey and monitor all phases of the implementation and operation of SBIR programs within agencies required to establish an SBIR program, including compliance with the expenditures of funds according to the requirements of subsection (i) of this section; and
"(2) report not less than annually, and at such other times as the Director may deem appropriate, to the Committees on Small Business of the Senate and the House of Representatives on all phases of the implementation and operation of SBIR programs within agencies required to establish an SBIR program, together with such recommendations as the Director may deem appropriate."

Sec. 5. Effective October 1, 1988, paragraphs (4) through (7) of section 9(b) of the Small Business Act (as added by section 8) and subsections (e) through (k) of section 9 of the Small Business Act (as added by section 4) are repealed.

Sec. 6. The Comptroller General shall, not more than five years after the date of enactment of this Act, transmit a report to the Senate and the House of Representatives on the implementation of, and nature of research conducted under this Act, including the judgments of the heads of Departments and agencies as to the effect of this Act on research programs.

Approved July 22, 1982.
Public Law 99-443
99th Congress

An Act

To provide the Small Business Administration continuing authority to administer a program for small innovative firms, and for other purposes.

BE IT ENACTED by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. Section 9(em)(1) of the Small Business Act (15 U.S.C. 636te)(em)(1)) is amended by inserting immediately after "facilities," the following: "except that for the Department of Defense it shall not include amounts obligated solely for operational systems development, and".

SEC. 2. Section 5 of Public Law 97-219 is amended by striking "1988" and inserting "1993".

SEC. 3. Section 6 of Public Law 97-219 is amended to read as follows:

"Sec. 6. (a) The Comptroller General, no later than December 31, 1988, shall transmit a report to the appropriate committees of the House of Representatives and of the Senate evaluating the effectiveness to date of phase one and phase two of the SBIR Program as set out in section 9(em)(4) of the Small Business Act. Such report shall examine the quality of the research supported by the SBIR Program compared to that traditionally supported by the affected agencies, and the extent to which the goals of the SBIR Program are being met. Such report shall also include the judgments of the heads of departments and agencies as to the effect of this Act on research programs.

"(b) The Comptroller General, no later than December 31, 1991, shall transmit to such committees an update of the report mandated under subsection (a). Such report, in addition, shall include an evaluation of phase three of the SBIR Program including a discussion of the aggregate commercial trends for products which are then currently in or have completed phase three of the program."

Approved October 6, 1986.