



U.S. ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF INSPECTOR GENERAL

Catalyst for Improving the Environment

Special Report

EPA's Small Business Innovative Research Awards Should Include Additional Certifications to Reduce Risk

Report No. 11-N-0199

March 30, 2011

Report Contributors:

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Madeline Mullen
Nicole Pilate
Matthew Simber

Abbreviations

CIGIE	Council of Inspectors General for Integrity and Efficiency
EPA	U.S. Environmental Protection Agency
OIG	Office of Inspector General
ORD	Office of Research and Development
SBIR	Small Business Innovative Research



At a Glance

Catalyst for Improving the Environment

Why We Did This Review

The Council of Inspectors General for Integrity and Efficiency (CIGIE) suggested a series of certifications be included in Small Business Innovative Research (SBIR) awards government-wide. The Office of Inspector General reviewed the U.S. Environmental Protection Agency (EPA) SBIR solicitations and contracts to determine whether EPA included those certifications.

Background

The SBIR program provides incentive funding to small businesses to translate their innovative ideas into commercial products that address environmental problems.

For further information, contact our Office of Congressional, Public Affairs and Management at (202) 566-2391.

The full report is at:
www.epa.gov/oig/reports/2011/20110330-11-N-0199.pdf

EPA's Small Business Innovative Research Awards Should Include Additional Certifications to Reduce Risk

What We Found

Our review of EPA's SBIR solicitations and contracts found that EPA has certifications and contract clauses that address many of the CIGIE concerns. However, EPA would benefit from two additional certifications CIGIE suggested. EPA does not require awardees to submit a certification against false statements when submitting the proposal. EPA also does not require a certification with the final report that addresses, among other items, that the report statements are true and completed. We believe that the risks CIGIE identified would be significantly mitigated if EPA added these certifications to its SBIR program.

What We Recommend

We recommend that the Assistant Administrator for Research and Development add a certification statement to the current requirements SBIR funding applicants must submit prior to award and require SBIR funding recipients to submit a certification statement with their final reports.

In response to the draft report, EPA concurred with our recommendations. In 2010, the Office of Research and Development required the signed certification for phase 2 contracts prior to award and at the time of the final report. For March 2012 solicitations and thereafter, EPA has agreed that signed certifications will be required for phase 1 contracts prior to award and at the time of the final report. Also, a new certification will be added to phase 1 and 2 contracts for signature prior to final report issuance.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

THE INSPECTOR GENERAL

March 30, 2011

MEMORANDUM

SUBJECT: Special Report:
EPA's Small Business Innovative Research Awards
Should Include Additional Certifications to Reduce Risk
Report No. 11-N-0199

FROM: Arthur A. Elkins, Jr.
Inspector General

A handwritten signature in black ink, appearing to read "Arthur A. Elkins, Jr.", is placed to the right of the "FROM:" line.

TO: Paul Anastas
Assistant Administrator for Research and Development

This is our report on the subject review conducted by the Office of Inspector General (OIG) of the U.S. Environmental Protection Agency (EPA). This report contains findings that describe the problems the OIG has identified and corrective actions the OIG recommends. This report represents the opinion of the OIG and does not necessarily represent the final EPA position. Final determinations on matters in this report will be made by EPA managers in accordance with established audit resolution procedures.

The estimated direct labor and travel costs for this report are \$6,955.

Action Required

In accordance with EPA Manual 2750, we are closing this report on issuance in our tracking system. The agreed-to milestones for each recommendation are required to be tracked in the Management Audit Tracking System until the corrective actions are complete. While a formal response to the final report is not required, we request that you provide us with documentation of the policies and procedures that you prepare and issue in response to this report. We have no objections to the further release of this report to the public. This report will be available at <http://www.epa.gov/oig>.

If you or your staff have any questions regarding this report, please contact Melissa Heist at 202-566-0899 or heist.melissa@epa.gov, or Janet Kasper at 312-886-3059 or kasper.janet@epa.gov.

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Purpose

The Council of Inspectors General on Integrity and Efficiency (CIGIE), Research Misconduct Working Group, met in December 2009 to discuss fraud in the Small Business Innovative Research (SBIR) program. CIGIE contacted inspectors general from SBIR-funding agencies across the government and asked them to assess and recommend how SBIR award certifications can be improved to prevent and prosecute fraudulent use of these funds. The U.S. Environmental Protection Agency (EPA), Office of Inspector General (OIG), reviewed EPA's SBIR solicitations and contracts to determine whether they contain the certifications CIGIE recommended.

Background

EPA is one of 11 federal agencies that participate in the SBIR program established by the Small Business Innovation Development Act of 1982. The purpose of the act was to strengthen the role of small businesses in federally funded research and development, and help develop a stronger national base for technical innovation. Through the SBIR program, small businesses can translate their innovative ideas into commercial products that address environmental problems.

EPA awards SBIR contracts in two phases. In the fiscal year 2010 solicitation, EPA stated it would award about \$2.8 million in phase I contracts, which cannot exceed \$80,000 each, and the term of performance is not to exceed 6 months. In the fiscal year 2009 solicitation, EPA stated it would award about \$2 million in phase II contracts, at approximately \$225,000 per contract and a performance period of 24 months. Only contractors (i.e., recipients) who completed a phase I contract may apply for phase II funding.

The CIGIE Research Misconduct Working Group met to discuss fraud in the SBIR program government-wide. CIGIE was concerned about the potential for a firm to be funded by more than one federal agency for the same research. To mitigate these concerns, CIGIE recommended that SBIR agencies include specific certifications at various stages in the SBIR process.

Certifications that accompany federal funding awards provide two main benefits: they act as a deterrent, and they bolster enforcement efforts. As a deterrent, certifications force applicants to consider what they are submitting and attesting to, possibly deterring them from certifying falsely. Certifications bolster enforcement efforts because they facilitate prosecution of recipients if fraud is committed.

EPA's SBIR Award Certifications Need Improvement

Our review of EPA's SBIR solicitations and contracts found that most of the CIGIE concerns were addressed. However, EPA would benefit from two additional certifications that CIGIE suggested. EPA does not require awardees to submit a certification against false statements when submitting the proposal. EPA also does not require a certification with the final report that addresses, among other items, that the report statements are true and completed. We believe that the risks CIGIE identified would be significantly mitigated if EPA added these certifications to its SBIR program

To address the concerns it had identified with the SBIR program, CIGIE recommended a set of certifications that should accompany each SBIR award. CIGIE proposed seven certifications that it identified in National Science Foundation SBIR awards, payments, or reports. Each SBIR funding applicant and recipient is to:

1. Disclose other federal agencies to which the proposal was submitted
2. Certify that it is indeed a small business concern as defined in the solicitation
3. Certify that the firm will perform the required percentage of work in each of the phases of research (two-thirds for phase I awards)
4. Certify that the primary employment of the principal investigator will be with firm at the time of award and during the period of research
5. Certify that the statements in its proposal are true, with knowledge that providing false information in the application, supporting documentation, or required reports is a criminal offense
6. Recertify with the first payment request in regards to the principal investigator, small business concern, and that overlapping proposals with other federal agencies have been withdrawn
7. Certify with the final product that statements are true and complete and the original work of the principal investigator

The EPA SBIR solicitations contain a proposal cover sheet that is required for all SBIR applicants. This proposal cover sheet prompts the applicant to disclose any other federal agencies to which it submitted the proposal. The proposal cover sheet also requires the applicant to certify that it is a small business concern as defined in the solicitation and that it will perform the required percentage of work under the contract. These certifications in the proposal submission address three of the certifications CIGIE suggested.

While EPA's SBIR solicitations do not address employment of the principal investigator, the Agency's phase I and II contracts specifically discuss this topic. In both phases of research, the SBIR contract contains the specific requirement that the principal investigator's primary employment must be with the contracted firm during the performance of the contract, unless approved in writing by the

EPA contracting officer. This contract clause addresses the fourth concern CIGIE raised.

CIGIE also suggested reiterating the certifications with the recipient's initial request for payment. We determined that such a requirement was not necessary, and EPA agreed. EPA's SBIR phase I and II recipients must report monthly and submit an invoice with each monthly report. Since only 30 days will have passed between the signing of the contract and the initial request for payment, we concluded that the certification with the initial payment request is not necessary.

EPA was not using the remaining two certifications that CIGIE recommended to mitigate risks to EPA funds and programs. Specifically, we believe that EPA should require each SBIR applicant to sign a certification as part of its proposal submission and again as part of the final report. This certification will accomplish the goals of fraud deterrence and assist in prosecutions, when necessary. We provide an example of the certification form for use with proposal submissions in appendix A and an example of the certification form for use with final reports in appendix B.

During our review, we also learned that EPA's National Center for Environmental Research is currently reviewing the Agency practice of awarding SBIR funding through contracts as opposed to assistance agreements. The OIG shares an interest in this aspect of SBIR funding, as many other federal agencies award SBIR funding through assistance agreements, most notably the National Science Foundation. Once the National Center for Environmental Research completes its review, we ask that the office share the results and any intended actions and implementation dates regarding the funding vehicle the program will use.

Recommendations

We recommend that the Assistant Administrator for Research and Development:

1. Add the certification statement provided in appendix A to the current requirements that SBIR funding applicants must submit prior to award.
2. Require SBIR funding recipients to submit the certification statement provided in appendix B with their final reports.

Agency Response and OIG Comments

EPA agreed with our recommendations. In 2010, the Office of Research and Development required the signed certification for phase 2 contracts prior to award and at the time of the final report. For March 2012 solicitations and thereafter:

- Signed certifications will be required for phase 1 contracts prior to award and at the time of the final report.

- A new certification will be added to phase 1 and 2 contracts for signature prior to final report issuance.

The response addresses the recommendations and provides a timeframe for completing the actions.

Status of Recommendations and Potential Monetary Benefits

RECOMMENDATIONS						POTENTIAL MONETARY BENEFITS (in \$000s)	
Rec. No.	Page No.	Subject	Status ¹	Action Official	Planned Completion Date	Claimed Amount	Agreed To Amount
1	3	Add the certification statement provided in appendix A to the current requirements that SBIR funding applicants must submit prior to award.	O	Assistant Administrator for Research and Development	03/31/2012		
2	3	Require SBIR funding recipients to submit the certification statement provided in appendix B with their final reports.	O	Assistant Administrator for Research and Development	03/31/2012		

¹ O = recommendation is open with agreed-to corrective actions pending
C = recommendation is closed with all agreed-to actions completed
U = recommendation is undecided with resolution efforts in progress

Certification for Use With Proposal Submissions

Proposed language¹ to be included in the certification as a part of each SBIR applicant's proposal submission:

The contractor [or appropriate term] certifies that:

(1) the principal investigator and the small business firm have not accepted funding for the same or overlapping work except as stated in the underlying proposal;

(2) all proposals describing the same or overlapping work have been withdrawn from other agencies;

(3) the primary employment of the principal investigator is with this firm at the time of the award and will continue during the conduct of the research;

(4) the contractor [or appropriate term] is a small business as defined in the EPA SBIR Solicitation under which the contractor [or appropriate term] submitted its proposal, and the principal investigator is an employee of the firm and is currently available to perform the proposed work; and

(5) the undersigned understands that willfully making a false statement to or concealing a material fact from EPA is a criminal offense (U.S. Code, Title 18, Section 1001).

Authorized Company Officer:

Signature: _____

Date: _____

Principal Investigator:

Signature: _____

Date: _____

¹ This language is taken from the example document CIGIE provided. The example document included the current certifications the National Science Foundation uses. We modified the certification to reference EPA.

Certification for Final Reports

Proposed language² to be included in the certification as a part of each SBIR applicant's final report:

I certify that the Principal Investigator currently is _ is not _ “primarily employed” by the contractor organization as defined in the SBIR Solicitation.

I certify that the work under this project has _ has not _ been submitted for funding to another Federal agency and that is has _ has not _ been funded under any other federal grant, contract, or subcontract.

I certify that to the best of my knowledge the work for which payment is hereby requested was performed in accordance with the award terms and conditions and that payment is due and has not been previously requested.

I certify that to the best of my knowledge (1) the statements herein (excluding scientific hypotheses and scientific opinions) are true and complete, and (2) the text and graphics in this report as well as any accompanying publications or other documents, unless otherwise indicated, are the original work of the signatories or individuals working under their supervision.

I understand that the willful provision of false information or concealing a material fact in this report or any other communication submitted to EPA is a criminal offense (U.S. Code, Title 18, Section 1001).

Authorized Company Officer:

Signature: _____

Date: _____

Principal Investigator:

Signature: _____

Date: _____

² This language is taken from the example document CIGIE provided. The example document included the current certifications the National Science Foundation uses. We modified the certification to reference EPA.

Agency Response

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

MAR 14 2011

OFFICE OF
RESEARCH AND DEVELOPMENT

MEMORANDUM

SUBJECT: Office of Research and Development (ORD) Response EPA's Small Business Innovative Research Awards Should Include Additional Certifications to Reduce Risk, Project No. OA-FY2010-0233

FROM: Paul T. Anastas
Assistant Administrator
Office of Research and Development

TO: Melissa Heist
Assistant Inspector General Office of Audit

Thank you for the opportunity to comment on the Office of Inspector General (OIG) draft audit report, EPA's Small Business Innovative Research Awards Should Include Additional Certifications to Reduce Risk (Project No. OA-FY2010-0233), dated February 1, 2011. The report is accurate and keeping with the recent initiatives to address fraud, waste, and abuse in the Small Business Innovative Research (SBIR) Program. The OIG's recommendations will help reduce the risk of fraud, waste, and abuse in the SBIR Program.

Recommendation 1: "Add the certification statement provided in Appendix A to the current requirements SBIR funding applicants must submit prior to award." ORD generally agrees with this recommendation. ORD has developed a certification that was modeled after the National Science Foundation (NSF) certification. In 2010, ORD required the signed certification for Phase 2 contracts prior to award and at the time of the final report. Appendix A of the draft audit report does not reference this certification, so we have included a copy of the certification (K.7) in this memorandum (see Attachment 1). To fully address the recommendation, ORD will now also require a signed certification for Phase 1 contracts prior to award.

Planned completion date: Prior to making SBIR awards resulting from the March 2012 solicitations and solicitations thereafter.

Recommendation 2: "Require SBIR funding recipients to submit the certification statement provided in Appendix B with their final reports." ORD generally agrees with this recommendation. ORD will develop a new certification statement that will be added to Phase 1 and Phase 2 contracts. ORD will require signed certifications by the awardees prior to their final report.

Planned Completion Date: Final Reports issued resulting from the March 2012 solicitation and solicitations thereafter.

Please find a summary table of ORD's corrective actions and associated projected completion dates (see Attachment II). If you have any questions, please contact Norman Adkins at (919) 541-0872.

Attachments

cc: Craig Hooks (OARM)
Janet Kasper (OIG)
Lek Kadeli (ORD)
Kevin Teichman (ORD)
William Sanders (ORD)
Christopher Zarba (ORD)
Amy Battaglia (ORD)

Attachment I

K.7 Certification

Submission of this certification is required prior to contract award and with the final report:

The contractor certifies that.-

- 1. The principal investigator and the small business firm have not accepted funding for the same overlapping work except as stated in the underlying proposal;*
- 2. All proposals describing the same or overlapping work have been withdrawn from other agencies;*
- 3. The primary employment of the principal investigator is with the firm at the time of the award and will continue during the conduct of the research;*
- 4. The awardee is a small business as defined in the EPA SBIR Solicitation under which the awarded submitted its proposal, and the principal investigator is an employee of the firm and is currently available to perform the proposed work; and,*
- 5. The undersigned understands that will fully making a false statement to or concealing a material fact from EPA is a criminal offense (US Code, Title 18, Section 1001).*

Authorized Company Officer:

Signature: _____ Date: _____

Principal Investigator:

Signature: _____ Date: _____

Rec No.	OIG Recommendation	Lead Responsibility	ORD Corrective Action	Planned Completion Date
1	Add the certification statement provided in Appendix A to the current requirements SBIR funding applicants must submit prior to award	Assistant Administrator for Research and Development	ORD has already developed a certification that was modeled after the National Science Foundation (NSF) certification. In 2010, we required the signed certification for Phase 2 contracts prior to award and at the time of the final report. To fully address the recommendation, ORD will also require this certification to be signed for Phase 1 contracts prior to award and at the time of the final report.	Prior to making SBIR awards resulting from the March 2012 solicitations and solicitations thereafter.
2	Require SBIR funding recipients to submit the certification statement provided in Appendix B with their final reports	Assistant Administrator for Research and Development	ORD will develop a new certification statement that will be added to Phase 1 and 2 contracts. ORD will require signed certifications by the awardees prior to their final report.	Final Reports issued resulting from the March 2012 solicitation and solicitations thereafter.

Distribution

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