

Management Implication Report: Lack of Readily Accessible Small Business Innovation Research Data

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OFFICE OF INSPECTOR GENERAL
U.S. ENVIRONMENTAL PROTECTION AGENCY

September 28, 2023

MEMORANDUM

SUBJECT: Management Implication Report: Lack of Readily Accessible Small Business Innovation Research Data

FROM: Jason Abend, Assistant Inspector General
Office of Investigations

TO: Dr. Chris Frey, Assistant Administrator and EPA Science Advisor
Office of Research and Development

Kimberly Patrick, Principal Deputy Assistant Administrator
Office of Mission Support

Purpose: The U.S. Environmental Protection Agency Office of Inspector General is statutorily mandated “to cooperate to prevent fraud, waste, and abuse” in the Small Business Innovation Research, or SBIR, Program by, among other things, “reviewing regulations and operating procedures” of the EPA. 15 U.S.C. § 638b(a)(5)(B). To this end, we have identified a concern regarding the inability of both OIG and Agency personnel to extract EPA SBIR contract data—such as information about proposals, bids, awards, contractors, and subcontractors—from the EPA Acquisition System, or EAS, in meaningful ways to allow for oversight through data analytics, queries, and other proactive initiatives. Additionally, the EPA should consider improving how data for the entire SBIR procurement process are entered into the EAS, so that all relevant information for the life cycle of an SBIR contract is standardized and readily retrievable. We are issuing this report to inform the Agency of our concerns and to provide considerations for the EPA that, if acted upon, would strengthen our ability to accomplish our statutorily mandated oversight duty to prevent fraud, waste, and abuse in the EPA’s SBIR Program.

Background: The EPA is one of 11 federal agencies that participates in the SBIR Program established by the Small Business Innovation Development Act of 1982. The EPA SBIR Program supports federal research and development of technology that has the potential for commercialization. As explained on its [website](#), the EPA SBIR Program issues a solicitation each year that seeks project proposals for technology to address specific areas, such as clean and safe water, air quality and climate, land revitalization, homeland security, sustainable materials management, safer chemicals, and risk assessment. Submitted proposals are then evaluated on their technical merit, potential for commercialization, and impact on the given area. The Agency funds the selected SBIR projects in two phases. For Phase I, the EPA awards contracts of up to \$100,000 for proof of concept of the proposed technology. Companies that successfully complete a Phase I project may be eligible for Phase II funding of up to \$400,000 to further develop and commercialize the technology.

The EPA SBIR Program uses the EAS for the life cycle of its contract process as the official system of records, which incorporates the EPA's policies, guidelines, and business processes. According to the EPA, the EAS "enables all key stakeholders in the procurement process to utilize one automated system throughout the acquisition life cycle from requisitioning to contract closeout." Additionally, the EAS fully integrates relevant systems, including the:

- EPA's financial system.
- EPA's Compass Data Warehouse.
- EPA's Data Mart.
- U.S. General Services Administration's Integrated Award Environment and System for Award Management.
- [FedConnect](#) system.

FedConnect is a private web portal that connects federal agencies and vendors to streamline the process of doing business with the federal government. Through FedConnect, contractors can receive, review, and respond to contract administration actions and documents, such as correspondence, request for proposals, tasking instruments, and contract modifications. According to the EPA's [website](#), companies applying for EPA SBIR Program contracts and grants submit their proposals via FedConnect. Information from FedConnect then flows directly into the EAS.

Concerns Identified: The EPA OIG prevents and detects fraud, waste, and abuse in the EPA's SBIR Program by, among other things, investigating instances of SBIR-related fraud and identifying areas of concern for the Agency to consider addressing by implementing best practices or taking other mitigating actions. We have observed that OIG and Agency staff are unable to readily search and access data, for either awarded contracts or nonawarded applications, from the EAS. For example, some information is currently submitted to the EAS in PDF format; if all required information was available in database fields, it would be more accessible for both internal control reviews and investigative purposes.

We have also observed a lack of consistency in the format of information submitted to the EAS. For example, the EPA accepts budget proposal information with very little details from some applicants, while other applicants provide detailed budget proposals. Consistency in what budget information is submitted within the EAS, especially as it relates to payments to subcontractors and consultants, will increase the transparency of EPA research awards. Such transparency is important for the EPA SBIR contract subawards because of their potential size. Under the SBIR Program, the prime contractor is allowed to make subawards of up to 33 percent of a Phase I project and up to 50 percent of a Phase II project. That means, if maximum amounts are awarded, approximately \$33,000 of an EPA Phase I award and \$200,000 for an EPA Phase II award could be in the form of subawards.

These issues negatively impact our ability to detect and potentially prevent fraud within the SBIR Program. Agency staff also cannot reliably conduct accurate reviews of SBIR Program proposals. Having complete, consistent, and readily searchable information in the EAS for the entire SBIR procurement

process, including for SBIR proposals, is imperative for effective, robust, and proactive oversight. Even without a fully functional EAS search ability, we have successfully investigated SBIR-related fraud; however, we have learned about these cases reactively and predominantly through OIG Hotline referrals or referrals from other agencies. If the EPA acts to include comprehensive and consistent information in the EAS that could be easily and proactively retrieved and analyzed, the likelihood of our identifying, investigating, and facilitating the prosecution of more fraud becomes exponentially greater.

For example, we have investigated cases where EPA SBIR applicants have submitted false representations within their research proposals in an attempt to induce the EPA to provide them with a contract award. Once awarded, these proposals with false pretenses become the scope of work for the issued contract, resulting in contract fraud. The following two summaries of recently concluded SBIR-related investigations demonstrate not only the financial impact of procurement fraud but also how we could proactively search a fully capable EAS to detect similar instances of fraud:

- ***Summary of investigation:*** An individual obtained a \$100,000 EPA SBIR Phase I contract under false pretenses. To induce the EPA to award him the contract, the individual falsely certified having an agreement with a university and professor to complete specific work, when no such agreement existed. The individual’s SBIR proposal also identified the professor as “key personnel” who was working on the research effort as a subject matter expert, but the professor did not do the work. The individual knew SBIR proposals had a better chance of being funded if projects were performed in collaboration with universities and subject matter experts. In conjunction with fraud related to a U.S. Department of Energy SBIR contract, the individual was [sentenced](#) to six months in prison and six months of home detention and was subsequently ordered to pay restitution of \$100,000 to the EPA.
- ***Summary of investigation:*** From 2013 to at least 2016, a company applied for and received multiple awards from the EPA and the U.S. National Science Foundation under its SBIR Programs. The awards, which included awards under the NSF’s Small Business Technology Transfer Program, totaled \$1,375,000. Not all the awarded funds were disbursed; the company received, in total, \$881,669.69 from the NSF and the EPA. In its proposals for these awards, the company included misrepresentations regarding its eligibility to seek SBIR awards, as well as regarding other material aspects of the projects, including employees, budget, and recommenders. In March 2021, the company agreed to plead guilty to two counts of making false statements under 18 U.S.C. § 1001(a)(3). The basis for the plea was the company’s false representations in proposals to the NSF and the EPA. The company was [sentenced](#) to pay, among other amounts, \$319,199.69 in restitution to the EPA and to five years of probation.
- ***Lessons learned:*** In both examples, the fraud was ultimately identified through a labor-intensive manual review of PDF proposals in EAS. Identifying other similar instances of fraud would likely require us to conduct additional manual searches—a slow and imprecise process. But with a fully capable EAS that includes the names of subcontractors, budget, and other proposal information in searchable data fields, we could efficiently conduct targeted searches to identify similar patterns in other contracts or applications.

These examples highlight that the EPA should consider requiring that data for the life cycle of the procurement process be entered in searchable data fields in the EAS. This includes SBIR procurement documents, including proposal information from applicants that were not awarded a contract. Having such information available and easily searchable can be extremely important during an investigation, even if a subject did not receive a contract award. If this information was readily available, we could more efficiently and effectively review it for fraudulent representations and statements. For example, 18 U.S.C. §1343, commonly referred to as the “wire fraud” statute, does not require an actual economic or property loss, nor does it require that the scheme have succeeded; the act of transmitting a research proposal with false representations to induce a contract award is sufficient to support an allegation of wire fraud. Further, unawarded proposals with fraudulent representations may be considered during a criminal sentencing if they are part of the same course of conduct or the common scheme of the conviction. Additionally, we may conduct investigations jointly with other law enforcement entities that the subject may have defrauded, and being able to see if the subject submitted any proposals, whether or not it resulted in an awarded contract, can help us determine whether we have a nexus to join another pending investigation.

By addressing the concerns identified, the EPA can increase the transparency of its awards and facilitate the prevention and detection of potential fraud before, during, and after the contract performance period. Addressing the concerns will also assist us as we investigate SBIR proposals and awards that present a risk to the integrity of government-funded research and development, and as we take a proactive approach to analyzing the information to prevent waste, fraud, and abuse.

My office is notifying you of these concerns so that the Agency may take whatever steps it deems appropriate. If you decide it is appropriate for your office to take or plan to take action to address these matters, we would appreciate notification of that action. Should you have any questions regarding this report, please contact Special Agent in Charge [REDACTED] at [REDACTED] or via email at [REDACTED]@epa.gov.

cc: Sean W. O’Donnell, Inspector General



Whistleblower Protection

U.S. Environmental Protection Agency

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