

NATIONAL SCIENCE FOUNDATION
4201 WILSON BOULEVARD
ARLINGTON, VIRGINIA 22230

May 24, 2016

Maria T. Zuber, Ph.D.
Chairperson, National Science Board
Massachusetts Institute of Technology, Rm 3-234
77 Massachusetts Avenue
Cambridge, MA 02139-4307

Dear Dr. Zuber:

The National Science Foundation herewith transmits its response to the Inspector General's Semiannual Report, which covers the period October 1, 2015 through March 31, 2016. Also included for the same time period is the management report on final actions on audits with disallowed costs.

NSF agrees with the OIG and affirms our view that oversight of large facilities is a top priority and that there are opportunities for improvement. Where NSF and the OIG diverge is on the adequacy of NSF's improvements to large facility oversight. NSF is making immediate, necessary, and appropriate changes in oversight across its entire portfolio, focused on root causes that are not fully acknowledged in these audits or semiannual reports. More importantly, NSF Management's concern is that the OIG Alert Memos seek to re-visit prior identified award oversight issues without adequately taking into account each projects' specific circumstances.

We hope that the NSF's response to the OIG Semiannual Report will present a fair view of the numerous ways in which the Agency has responded to the OIG's concerns and continuously improved upon its processes.

Sincerely,



Martha A. Rubenstein
Chief Financial Officer

Enclosures

cc: Dr. France Córdova

Agency Response to the Office of the Inspector General Semiannual Report to Congress

NSF Management appreciates the opportunity to provide its response to the Office of Inspector General (OIG) Semiannual Report, covering the period from October 1, 2015 through March 31, 2016. The OIG Semiannual Report devotes considerable attention to risks, noting problems with NSF oversight of certain large facility cooperative agreements. Our response is focused on the reviews by the OIG Office of Audits related to large facility cooperative agreements, so as to provide additional information and context that more thoroughly depicts NSF Management's newly strengthened oversight and corrective actions occurring throughout this period. We also include the Management Report on final actions on audits with disallowed costs during this reporting period.

Introduction

NSF funds state-of-the-art large-scale, multiuser scientific facilities that lead to ground-breaking scientific discoveries and establish necessary infrastructure for the scientific community. During this reporting period, for example, the Laser Interferometer Gravitational-Wave Observatory (LIGO) announced the detection of gravitational waves arising from two black holes colliding a billion years ago, validating Einstein's theory of relativity. This discovery is just one of many that have been made possible by NSF's long-term commitment to, and proper stewardship of, large facility projects funded through the cooperative agreement mechanism.

We agree with the OIG and affirm our view that oversight of large facilities is a top priority and that there are opportunities for improvement. Where NSF Management and the OIG diverge, however, is on the adequacy of NSF's improvements to large facility oversight that is described in several of OIG's audit products.

OIG Audit Products and Recommendations

The three types of audit products that are referenced in the OIG Semiannual Report (Alert Memos, letters from the OIG contract auditor, and the FY 2015 Financial Statement Audit Report) illustrate these differences in perspective and approach between NSF Management and the OIG.

Cost and Schedule Risks to the Daniel K. Inouye Solar Telescope Project and Cost and Schedule Risks to the Large Synoptic Solar Telescope Project

The DKIST and LSST Alert Memos issued by the OIG are composed of two parts: (1) narratives with assertions and conclusions; and (2) recommendations for NSF action. The memos conflate a variety of issues that cover several years, and many of the assertions by the OIG are unrelated to the final recommendations.

The DKIST Alert Memo refers to a separate audit's findings associated with a re-baselined proposal, expressing concerns about serious deficiencies. NSF Management has submitted a

draft response to the OIG audit findings and the final resolution of that audit is still pending. We believe that this alert memo raises additional concerns before the OIG has fully considered NSF's response to the first audit product.

Similarly, the LSST Alert Memo states that "poor quality of the information in [Earned Value Management (EVM)] reports for the NEON project was one of the reasons why the cost overrun for that project was undetected for so long . . .". While it is factually correct that there were poor quality EVM reports for NEON, this assertion is problematic because it does not consider the details of the situation in two ways: (a) there was no actual cost overrun for NEON because of NSF's timely oversight and decisive actions; and (b) the root causes for problems with the NEON project were far more complex than could be captured in its EVM reports. Despite its problems, EVM reporting was still sufficient to illustrate the project's inability to manage to budget and schedule. Based on this information, NSF initiated the process that ultimately replaced the management of NEON and made other substantive changes in NSF's cooperative management role in the project.

We note that NSF's Corrective Action Plan (CAP) for a prior LSST Alert Memo is still pending OIG response. That plan was forwarded to OIG on January 23, 2015. NSF requested that the OIG assess that plan and communicate its reactions to NSF's initial effort at corrective action prior to issuance of subsequent Alert Memos conveying substantially the same subject matter.

NSF is making immediate, necessary, and appropriate changes in oversight across its entire portfolio that are not fully acknowledged in these audits or semiannual reports. More importantly, NSF Management's concern is that the OIG Alert Memos seek to re-visit prior identified award oversight issues without adequately taking into account each projects' specific circumstances. We reiterate our commitment to implementing the OIG recommendations, as appropriate, because many are beneficial, but we continue to focus our actions on the root causes.

Lack of Critical Cost Information Hinders Ability to Audit Two NSF Awardees

NSF Management expresses concern regarding two audit products issued by the OIG during this reporting period, which asserted inadequate cost submissions by NEON, Inc. and Associated Universities, Inc. (AUI). The audit products issued by the OIG appear to be incomplete audit work in view of the discontinuation of audit services by the Defense Contract Audit Agency (DCAA), the OIG contract auditor.

More specifically, on January 29, 2016, the OIG issued an audit product for both NEON and AUI, consisting of two-page memos to which the OIG attached short letters sent by DCAA to the OIG in November 2015. The Inspector General referred to these audit products in testimony before the House Science Committee, as examples of inadequate information arising from two large facility award recipients. Yet the DCAA letters arose from DCAA's adequacy reviews to determine if "all necessary information has been included in the proposal[s] to facilitate

[incurred cost audits].” While DCAA had requested that the OIG work with the award recipients to ensure that the information was available, should DCAA conduct such audits, the OIG issued instead the DCAA letters as finished audit products.

NSF’s internal reviews found that, based on outreach to the award recipients, there was no record of any attempt made by the OIG or its auditor to coordinate with NSF or the recipients to obtain the information that was identified as missing in the DCAA letters. For example, DCAA indicated that it had sent a copy of its letter for the NEON incurred cost submission to a NEON, Inc. employee, however, that employee had already left the organization and so the request was not known to NEON, Inc. Two months after the OIG received the DCAA letters, it added cover memos that again raised concerns about “high-dollar, high-risk” projects, and advised NSF to submit corrective action plans. We note that NSF had previously expended considerable effort and time to determine that cost information originally submitted by the award recipients was adequate for establishing indirect cost rates for the questioned years. Additionally, previous cost incurred audits of one of the two award recipients resulted in no costs being questioned.

Most simply, the OIG issued these two-page memoranda and recommendations absent requisite elements of audit findings (i.e., conditions, effects, causes, and criteria). Without more information, NSF believes that the OIG’s unsupported conclusions distract NSF from corrective actions it has already proposed for large facility oversight.

FY 2015 Financial Statement Audit Reports

NSF Management is pleased that the OIG auditor issued NSF’s eighteenth consecutive unmodified (clean) audit opinion in November 2015. The opinion noted no material weaknesses and one significant deficiency which was related to NSF’s oversight of large facility construction-type cooperative agreements. NSF agrees with the OIG that it should finalize the remaining processes and procedures related to contingency so that the significant deficiency can be closed.

The OIG semiannual report repeats previous recommendations related to separate tracking of contingency “expenditures” within the award recipient’s accounting system. While NSF Management appreciates that the OIG acknowledges that NSF cannot institute this recommendation without approval from OMB for deviation from its *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (2 CFR 200)* (“Uniform Guidance”), this recommendation is inconsistent with CFR 200 requirements and would add additional administrative burden with no improvement in oversight beyond procedures already in place. Moreover, it’s unreasonable to continue to carry this recommendation forward when it is acknowledged that NSF could not unilaterally ignore OMB’s requirements for federal financial assistance awards. Based on recommendations in the December 2015 report by the National Academy of Public Administration (NAPA) entitled *National Science Foundation, Use of Cooperative Agreements to Support Large Scale*

Investment in Research, NSF recently implemented stronger internal operating guidance to retain tighter control over obligations of budget contingency to award recipients: up to 100 percent, until the need can be justified. This method improves NSF oversight, strengthens internal controls documentation for audit, and is in full compliance with the Uniform Guidance. This approach also addresses the root causes related to large facility oversight in a way that provides the Agency flexibility to deal with contingency requirements on a project-by-project basis.

Conclusion

NSF Management reiterates its position that improvement of large facility oversight is a top priority. We will continue to enhance policies and procedures for the entire facilities portfolio in view of root causes and lessons learned from NEON and other projects. While the construction of unique, cutting-edge large science facilities holds a degree of inherent risk, and proper oversight can be challenging, NSF's nearly two decades of clean, unmodified financial statement audit opinions demonstrate the highest commitment to stewardship of taxpayer dollars.

NSF believes that timely, high-quality audit reports and responses to NSF's corrective action plans by the OIG would be critical components for proper stewardship. Such audits, coupled with prompt consideration of NSF's corrective actions, would be far more helpful to the agency than alert memos, letters, and other "quick look" products. We hope to work with the OIG to facilitate timely and high-quality audit reports, to continue to implement improvements in NSF oversight, and to address root causes of problems associated with large facility management by our award recipients.



National Science Foundation
4201 Wilson Boulevard, Arlington, Virginia 22230

Division of Institution & Award Support

MEMORANDUM

DATE: April 15, 2016

TO: Christina Sarris, Assistant General Counsel, OD

VIA: Martha Rubenstein, OFO and Office Head, Budget, Finance and Award Management *Marty*

Dale Bell, Division Director, Institution and Award Support

FROM: *Alex Wynnyk*
Alex Wynnyk, Branch Chief, Cost Analysis and Audit Resolution, Division of Institution and Award Support

SUBJECT: Management Report on Final Action on Audits with Disallowed Costs for the Six-month Period Ended March 31, 2016

Attached are the tables that report on the status of final actions taken on audits to be incorporated as part of "Management's Response to the Office of the Inspector General's Semiannual Report to Congress."

Should you have any questions or seek assistance on matters related to the attached statistical tables, I can be reached by telephone at ext. 4472 or by e-mail at awynnyk@nsf.gov.

Attachments

Management Report on Final Action on Audits with Disallowed Costs for the Six-month Period Ended March 31, 2016				Sustained Costs
A. Audit Reports with management decisions on which final action has not been taken at the beginning of the period:				
1	06-1023	Raytheon Company		\$10,362,698
2	08-1009	School District of Philadelphia ¹		\$2,512,246
3	15-5-105	Little Priest Tribal College		\$51,112
Subtotal A				\$12,926,056
				3
B. Audit Reports on which management decisions were made during the period:				
1	09-5-048	College of the Mainland		\$15,004
2	15-4-057	National Ecological Observatory Network (NEON)		\$15,000
3	15-5-040	State of Louisiana		\$820
4	15-5-049	Paine College		\$177
5	15-5-093	National Academy of Sciences		\$64,719
6	16-1-001	CH2M Hill Constructors, Inc. (CH2M Hill Group Mngt)		\$269,205
7	16-5-001	The Aerospace Corporation ²		\$176
8	16-5-002	U.S. Civilian Research & Development Foundation ²		\$10,181
Subtotal B				\$375,282
				8
C. Total Audit Reports pending final action during this period: (Total A+B: 11)				\$13,301,338
D. Audit Reports on which final action was taken during this period:				
1	06-1023	Raytheon Company		\$10,362,698
2	15-4-057	National Ecological Observatory Network (NEON)		\$15,000
3	15-5-040	State of Louisiana		\$820
4	15-5-093	National Academy of Sciences		\$64,719
5	16-1-001	CH2M Hill Constructors, Inc. (CH2M Hill Group Mngt)		\$269,205
6	16-5-001	The Aerospace Corporation ²		\$176
7	16-5-002	U.S. Civilian Research & Development Foundation ²		\$10,181
Subtotal D				\$10,722,799
				7
E. Audit Reports needing final action at the end of the period:				
1	08-1009	School District of Philadelphia ¹		\$2,512,246
2	09-5-048	College of the Mainland		\$15,004
3	15-5-049	Paine College		\$177
4	15-5-105	Little Priest Tribal College		\$51,112
Subtotal E				\$2,578,539
				4
F. Reconciliation of Audit Reports: (Total D+E: 11)				\$13,301,338
¹ Awardee has agreed to a payment plan of \$70,000/month from April 2013 through April 2016. Balance due as of April 11, 2016, is estimated at \$132,246.				
² NSF disallowed additional unallowable costs during resolution; therefore, the amounts to be collected are greater than the amounts identified in the OIG Questioned Costs tables.				

**Management Report on Final Action
on Audits with Disallowed Costs for the Six-month Period
Ended March 31, 2016**

	Number of Reports	Dollar Value
A. Audit reports with management decision on which final action has not been taken at the beginning of the period	3	\$12,926,056
B. Audit reports on which management decisions were made during the period	8	\$375,282
C. Total audit reports pending final action during this period (Total A+B)	11	\$13,301,338
D. Audit reports on which final action was taken during this period		
(1) Recoveries		
a) Collection and Offset	7	\$10,722,799
b) Amount uncollectible	0	
(2) Write-offs	0	
E. Audit reports needing final action at the end of the reporting period (C-D)	4	\$2,578,539
F. Total (D+E)	11	\$13,301,338

**Management Report on Final Action
on Audits with Recommendations for Better Use of Funds
Agreed to by Management
For the Six-month Period Ended March 31, 2016**

	Number of Reports	Dollar Value
A. Audit Reports with management decisions on which final action had not been taken at the beginning of the period	0	\$0
B. Audit Reports on which management decisions were made during the period	0	\$0
C. Audit reports on which final action was taken during this period (Total A+B)	0	\$0
D. Recommendations on which final action was taken during this period	0	
(1) the dollar value of recommendations that were actually completed		\$0
(2) the dollar value of recommendations that management subsequently concluded should not or could not be implemented or completed		\$0
E. Audit reports for which no final action has been taken by the end of the reporting period (C-D)	0	\$0