



National Science Foundation • Office of Inspector General
2415 Eisenhower Avenue, Alexandria, Virginia 22314

MEMORANDUM

DATE: September 14, 2018

TO: Teresa Grancorvitz
Chief Financial Officer

Dr. William E. Easterling
Assistant Director
Directorate for Geosciences

FROM: Mark Bell 
Assistant Inspector General
Office of Audit

SUBJECT: OIG Report No. 18-6-001, *Alert Memo Regarding Woods Hole Oceanographic Institution Major and Overhaul Stabilization Account*

In June 2017, we initiated an audit of the Woods Hole Oceanographic Institution (WHOI). Although this audit is still ongoing, this routine activity memo explains matters brought to NSF's attention and NSF's subsequent response and corrective actions taken.¹ Specifically, we found that WHOI cannot account for [REDACTED] in Major Overhaul and Stabilization Account² (MOSA) reserve funds that should have been available as of the end of 2016.

Funding for WHOI

WHOI is a private, nonprofit, research organization dedicated to research and education to advance understanding of the ocean and its interactions with Earth's systems, and to communicate this understanding for the benefit of society. In 2016, WHOI received \$192.2 million in research funding from government and non-government sources, including \$57.8 million from NSF.³ WHOI operates two federally owned research vessels and three submersible vehicles with funding through NSF Cooperative Agreements and Continuing Grants. In May 2018, the National Science Board passed a resolution (NSB-2018-21) authorizing

¹ We first issued this memo to NSF on July 12, 2018. NSF provided a response to our findings on September 12, 2018, and we are reissuing the memo to acknowledge NSF's response and corrective actions.

² Major Overhaul and Stabilization Account (MOSA) costs include U.S. Coast Guard-required inspections of research vessels every 2 to 3 years and other major maintenance and repairs completed during dry docking periods.

³ Woods Hole Oceanographic Institution 2016 Financial Statements, <http://www.whoi.edu/files/server.do?id=262584&pt=10&p=117153>

the Director to make an award to WHOI. The award is for \$220 million for the management and operations of the Ocean Observatories Initiative.

Management of MOSA Reserves

As required by the Cooperative Agreements, WHOI charges a daily rate to all users of the ships and submersibles. The daily rate funds the MOSA account. The MOSA account is for overhaul expenses to keep the vessels operationally ready. During our audit, WHOI demonstrated to us that its accounting system tracked and reported MOSA expenditures and reserve balances. However, WHOI was not able to show that the MOSA reserve balances, as reported in the accounting system, were on hand or earning interest as required.

Based on our comparison of WHOI’s year-end reserve balances to its bank statements, we estimate that WHOI cannot account for ██████ in MOSA reserve funds as of the end of 2016, as shown in Table 1. In addition, we estimate that WHOI did not earn ██████ in interest on the reserves, when calculated using an annual percentage yield of .05 percent.

Table 1. MOSA Reserves and Interest

Year	MOSA Reserve Balance in WHOI Accounting System	Bank Account	Unaccounted Amount ⁴	Interest not Earned
2014	██████	██████	██████	██████
2015	██████	██████	██████	██████
2016	██████	██████	██████	██████
Total	██████	██████	██████	██████

Source: NSF OIG analysis of WHOI-provided data

WHOI maintains all its funds, both Federal and private, in a single bank account and cannot match the source of funds to specific expenditures when making payments. In that regard, WHOI could not explain how or where the MOSA deficiencies were spent. As a result, WHOI cannot ensure compliance with the following sections of 2 CFR 200:

- 2 CFR 200.302(a)- The non-Federal entity’s financial management systems must be sufficient to permit “... the tracing of funds to a level of expenditures adequate to establish that such funds have been used according to Federal statutes, regulations, and the terms and conditions of the Federal award.”
- 2 CFR 200.302(b)(3)- The non-Federal entity’s financial management system must provide records that adequately identify “...the source and application of funds for federally-funded activities. These records must contain information pertaining to Federal awards, authorizations, obligations, unobligated balances, assets, **expenditures**, income and **interest** and be supported by source documentation.” [emphasis added]

The NSF Program Director for Ship Operations confirmed that WHOI is required to maintain its MOSA reserves in an interest-bearing bank account and add the interest earned to the MOSA

⁴ Amounts conservatively assume that all cash on hand at the end of each year is MOSA reserve. Since the bank account includes all WHOI funds, including WHOI’s regular operating funds, the actual annual MOSA reserve deficiencies could be greater than reflected in this table.

balance. NSF plans to adjust the language in the terms and conditions of the Cooperative Agreements for ship operations to require separate daily rates for MOSA and for operations and to update MOSA reporting requirements to include:

- a cumulative reconciled balance of each MOSA account *per the financial records* (beginning balance + MOSA funding – actual costs = ending balance);
- copies of pre-shipyard approvals to spend MOSA;
- the periodic shipyard reports;
- report of the past year’s MOSA expenditures (actual costs) that are tied to individual approvals;
- the MOSA cycle plan included in the annual reports; and
- the final report.

Our audit scope includes 12 NSF awards with total disbursements of \$59.2 million. For six of these awards, involving \$56.9 million of NSF funding, WHOI could not provide documentation that matched WHOI expenditures with disbursements on specific awards, as required by OMB guidance.

Although the updates in the Cooperative Agreements regarding MOSA will help bring more scrutiny to the issue, WHOI’s current inability to ensure compliance with the terms of its Cooperative Agreements, as well as 2 CFR 200, may compromise its ability to properly oversee the additional \$220 million in funding from NSF.

NSF Response and Corrective Actions

We initially issued this alert memo on July 12, 2018. NSF provided a written response on September 12, 2018, and we chose to reissue the memo to include NSF’s response, as summarized here and included in its entirety on the following pages.

Regarding accountability for MOSA funds, NSF issued new award conditions that require MOSA reserves to be held in a separate bank account. NSF confirmed that WHOI established a separate MOSA account with an opening balance of more than [REDACTED]. Based on WHOI’s calculations, the amount of MOSA funds it should have had on hand, including interest earned on the advanced funds, was about [REDACTED]. We reviewed WHOI’s calculations and do not question the amount.

In response to our concern about matching drawdowns to expenditures, NSF stated that by design Federal funding of ship operations awards is based on application of negotiated daily ship usage rates and not on direct reimbursement for day-to-day expenditures. NSF stated that the methodology is in line with OMB guidance to account for Specialized Service Facilities and that the Office of Naval Research, owner of the research ships operated by WHOI, agrees with this methodology. NSF verified that WHOI’s requests for NSF funds reconciled with the appropriate daily ship usage rates. We independently confirmed that WHOI’s drawdowns of NSF funds agreed with the daily ship rates during the period of our ongoing audit.

If you have any questions, please contact Dan Buchtel, Director, External Audits, at (303) 844-5645.

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MEMORANDUM

DATE:

SEP 12 2018

TO:

Mark Bell
Assistant Inspector General
Office of Audit

FROM:

Teresa Grancorvitz, Chief Financial Officer
Teresa Grancorvitz
Dr. William E. Easterling, Assistant Director, GEO
William E. Easterling

SUBJECT:

NSF Response to OIG Report No. 18-6-001, *Alert Memorandum Regarding Woods Hole Oceanographic Institution (WHOI) Major Overhaul and Stabilization Account (MOSA)*

This memorandum documents NSF activities responsive to the OIG Report No.18-6-001, *Alert Memorandum Regarding Woods Hole Oceanographic Institution (WHOI) Major Overhaul and Stabilization Account (MOSA)* ("Alert Memo").

In June 2017, the OIG notified WHOI that it intended to perform a limited scope audit. In May 2018, the National Science Board (NSB) authorized a new award to WHOI for \$220 million for the management and operations of the Ocean Observatories Initiative (OOI). On July 12, 2018, the OIG, while acknowledging that the audit was not yet completed, issued an Alert Memo asserting three concerns:

- (1) WHOI's ability to account for ██████████ in MOSA funds;
- (2) WHOI's lack of compliance with award requirements for MOSA funding; and
- (3) WHOI's ability to comply with federal standards for financial management systems cited in 2 CFR 200.302(a) and 2 CFR 200.302(b).

The OIG's Alert Memo concludes that the three concerns may compromise WHOI's ability to oversee the additional funding authorized by the NSB. The OIG did not make any recommendations with respect to current or any future awards to WHOI.

Upon issuance of the Alert Memo, NSF worked directly with WHOI staff to understand the specific issues cited and to determine the overall capability of WHOI's financial management system and

accounting processes, including those relevant to MOSA. NSF met with OIG staff on Tuesday, July 31, 2018, to share its preliminary determinations and underlying supporting documentation related to the Alert Memo concerns. The OIG also indicated that, as the audit is not yet complete, it could not confirm that the observations in the Alert Memo would result in findings in the final audit report.

Below are NSF's responses to the Alert Memo's three observations:

WHOI's ability to account for ████████ in MOSA funds: WHOI was able to account for its MOSA funding. NSF verified the MOSA balance from WHOI's MOSA ledgers for individual vessels. In accordance with the new award conditions effective July 1, 2018, WHOI opened a separate bank account for MOSA funds on July 23, 2018 and NSF takes no exception to the opening balance of the MOSA account.

WHOI's lack of compliance with award requirements for MOSA funding: Specifically, the OIG expressed concerns with WHOI's ability to ensure that MOSA payments are placed in an interest-bearing account and that interest earned is added back into the MOSA funding as required by the award. WHOI has taken corrective action by calculating interest that would have been earned since April 1, 2012 and transferring the funds into the separate interest-bearing bank account for MOSA funds on July 23, 2018. NSF verified the calculation for interest and takes no exception to the interest amount included in the opening balance of the separate MOSA bank account.

WHOI's ability to comply with federal standards for financial management systems cited in 2 CFR 200.302(a) and 2 CFR 200.302(b): The OIG's concerns with WHOI's financial management system appear to arise from expectations that actual MOSA expenditures will match cash requests under individual awards, rather than to daily rate expenditures. NSF was able to reconcile cash requests with appropriate daily rates under NSF Award No. 1822670 and provided the reconciliation to OIG on August 1, 2018. In addition, NSF met with the Office of Naval Research (ONR) on August 15, 2018, to review the reimbursement of ship operations, including MOSA, via the daily rate methodology. ONR reaffirmed that this methodology is consistent with the Uniform Guidance for Specialized Service Facilities (SSF). NSF provided a copy of the SSF analysis to the OIG on August 20, 2018.

In addition, NSF reviewed documents arising from oversight activities previously conducted or underway. NSF notes the following:

- WHOI's single audit for the year ended December 31, 2016, had one finding related to inventory records, which was fully addressed in the corrective action plan included with the audit report.
- WHOI's most recent single audit for the year ended December 31, 2017, has no findings.
- As directed by NSF, Hamilton Enterprises is conducting an accounting system audit of WHOI. The draft audit report findings are related to equipment and procurement

management, not 2 CFR 200.302(a) and 2 CFR 200.302(b) issues cited in the OIG alert memo. The final audit report is anticipated by September 15, 2018.

NSF has determined that WHOI's financial system meets the standards set forth in 2 CFR 200.302(a) and 2 CFR 200.302(b). Based on the information available to date, as provided by the OIG and from NSF's pre-award activities, NSF considers all issues raised in the OIG alert memo to be adequately mitigated. NSF believes that these concerns do not compromise WHOI's ability to oversee additional funding, authorized by the NSB, for the management and operations of OOI.

To the extent OIG has any additional information concerning this matter (*e.g.*, information that may have informed OIG's July 17, 2018 congressional reporting decision), NSF respectfully requests an opportunity to substantively review that information. As OIG's audit is ongoing and does not contain any recommendations for corrective action, NSF's request for additional information is a continuing one. Pending the receipt of this information (if it exists), NSF reserves all rights to edit, expand, or otherwise augment its response to the Alert Memorandum if it becomes necessary to do so.

Please contact Teresa Grancorvitz if you have any questions at (703) 292-4435.

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