

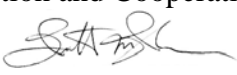


National Science Foundation • 4201 Wilson Boulevard • Arlington, Virginia 22230  
Office of Inspector General

## MEMORANDUM

DATE: March 18, 2015

TO: Jeffery M. Lupis, Director  
Division of Acquisition and Cooperative Support (DACS)

FROM: Dr. Brett M. Baker   
Assistant Inspector General for Audit

SUBJECT: Revised NSF OIG Audit Report No. OIG-13-1-001, Rev. 2, *Supplement to Independent Audit of University of Wisconsin-Madison's Incurred Costs of Cooperative Agreements for the IceCube Neutrino Observatory*

The Defense Contract Audit Agency's (DCAA) second revised incurred cost audit report for the University of Wisconsin-Madison's (UW-M) IceCube Cooperative Agreements, dated April 15, 2014, is attached. We previously provided two prior versions of this report to your office (NSF OIG Audit Report No. OIG-13-1-001, dated November 6, 2012 and March 22, 2013). The attached DCAA revised audit report replaces both the 2012 and 2013 reports in their entirety. Also, see the related OIG Report No. 13-1-003, Rev 1, *Supplement to Independent Audit of University of Wisconsin-Madison (UW-M), Noncompliance with CAS 501, 502 and its Disclosed Practices*, dated March 18, 2015.

**Summary of Changes:** All findings and questioned costs related to UW-M subawards, employee relocation costs, and indirect F&A costs, as reported in the 2013 report remain unchanged. The only difference in the 2014 report being transmitted with this memo is DCAA's retraction of its opinion that UW-M did not comply with CAS (Cost Accounting Standards) and OMB Circulars in accounting for its expenditures of contingency funds.

Although DCAA retracted that opinion, it is important to note that UW-M estimated contingency percentage factors for each WBS (Work Breakdown Structure) in its proposal budget to NSF. However, UW-M did not segregate and separately account for its expenditure of contingency funds in its accounting records to ensure that contingency outlays could be compared to budget amounts of contingencies, which is an important control to ensure federal funds are properly used. DCAA retracted its 2013 opinion of noncompliance because it concluded that federal regulations do not specifically require contingency expenditures to be separately tracked in the

accounting system, and there was no requirement in NSF's cooperative agreement to separately track those expenditures.

**Purpose and Scope of Audit:** We contracted with DCAA's Tri-State Branch Office to perform an incurred cost audit of approximately \$218.8 million of interim incurred direct costs claimed on University of Wisconsin-Madison's IceCube project under NSF Award Nos. ANT-0236449, ANT-0639286, and ANT-0937462.<sup>1</sup> The \$218.8 million in claimed costs included use of approximately \$44 million in budgeted contingency costs (20%) that NSF awarded under the construction cooperative agreement no. ANT-0236449. The audit covered the period of the awards from August 1, 2002 through June 30, 2011. The attached DCAA audit report includes UW-M's response. DCAA discussed its 2014 report revisions with UW-M in an exit conference on April 1, 2014, but the University did not issue a separate response to this report.

The objectives of the audit were to 1) determine the allowability of UW-M's interim direct costs claimed to NSF under the cooperative agreements; 2) evaluate UW-M's use and accounting for its NSF-awarded contingency costs; 3) determine whether UW-M complied with notice requirements related to the use of contingency funds under the established Change Control Process; 4) determine whether UW-M complied with: applicable Cost Accounting Standards (CAS), disclosed accounting practices in its CAS Disclosure Statement (DS-2), OMB Circular A-21 and OMB Circular A-110; and 5) report any instances of noncompliance with laws, regulations, provisions of the cooperative agreements and potential internal control weaknesses, which impact UW-M's ability to comply with the requirements in the cooperative agreements and for the use of contingency funds.

DCAA performed its audit of UW-M in accordance with Generally Accepted Government Auditing Standards, with the exception that DCAA did not, at the time of the audit, have an external opinion on its quality control system. The results of the DCAA audit are summarized below.

## **Results of Audit**

The findings and recommendations described below remain unchanged from the 2013 report. DCAA questioned \$2,134,379 of travel and "other" costs and opined that UW-M has not complied, in all material respects, with federal requirements applicable to the cooperative agreements. The interim incurred direct costs are not acceptable as submitted. The audit disclosed internal control weaknesses regarding UW-M's IceCube Change Control Process and identified instances where UW-M did not comply with applicable CAS, disclosed cost accounting practices, OMB Circular A-21 and OMB Circular A-110 requirements. As a result, DCAA has issued a CAS Noncompliance Report to formally address the noncompliance issues. That report (OIG Report No. OIG-13-1-003) will be provided under a separate OIG memorandum. Working through the noncompliance process could result in additional questioned costs.

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<sup>1</sup> The NSF IceCube Cooperative Agreements were awarded to fund the design, development, and construction of an 86-string array of mirrors in Antarctica, designed to capture and record neutrinos falling and embedded in the Antarctic ice.

UW-M's claimed costs and DCAA's questioned costs are summarized in the table below.

| Cost Element           | UW-M Actual Costs through 6/30/2011 |                               |                               | Questioned                    |                               |                               |
|------------------------|-------------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
|                        | Cooperative Agreement 0236449       | Cooperative Agreement 0639286 | Cooperative Agreement 0937462 | Cooperative Agreement 0236449 | Cooperative Agreement 0639286 | Cooperative Agreement 0937462 |
| Salaries               | \$ 21,973,558                       | \$ 4,106,756                  | \$ 1,141,008                  |                               |                               |                               |
| Fringe Benefits        | 7,631,880                           | 1,560,386                     | 446,808                       |                               |                               |                               |
| Equipment              | 55,064,816                          | 355,654                       | 62,390                        |                               |                               |                               |
| Supplies               | 2,807,245                           | 218,630                       | 6,974                         |                               |                               |                               |
| Domestic Travel        | 1,069,500                           | 63,525                        | 21,115                        | 6,785                         |                               |                               |
| Foreign Travel         | 981,329                             | 76,521                        | 39,852                        |                               |                               |                               |
| Tuition/Fee Allocation | 144,481                             |                               |                               |                               |                               |                               |
| Subagreements          | 62,921,296                          | 2,962,879                     | 215,327                       |                               |                               |                               |
| Other Expenditures     | 50,638,713                          | 3,495,649                     | 789,248                       | 2,127,594                     |                               |                               |
| Less Unallowable Costs | (320)                               |                               |                               |                               |                               |                               |
| Indirect F&A Costs     |                                     |                               |                               |                               |                               |                               |
| Total                  | \$203,232,498                       | \$ 12,840,000                 | \$ 2,722,722                  | \$ 2,134,379                  | \$                            | \$                            |
| Contingency Costs      | \$ --                               |                               |                               | \$ --                         |                               |                               |

The questioned costs of \$2,134,379 and other significant issues are described below.

- UW-M did not provide adequate supporting documentation for reclassifying its budgeted [REDACTED] and [REDACTED] subawards to service agreements. Reclassifying the subawards resulted in UW-M claiming increased indirect Facilities and Administrative (F&A) costs of [REDACTED] for [REDACTED] and [REDACTED] for [REDACTED] (totaling \$2,127,594) over the indirect allocation that UW-M would have received on the subawards. The F&A costs increased because UW-M's [REDACTED] F&A rate is allocable to the entire amount of service agreement costs, whereas subaward costs in excess of \$25,000 are excluded from receiving an F&A allocation per federal regulations.

Both [REDACTED] and [REDACTED] were identified as subawards in budgets submitted to and approved by NSF. Subaward purchase orders were established with both vendors with start dates of August 1, 2004. By not obtaining written NSF approval, UW-M unilaterally changed their classification from subawards to service agreements without adequate written documentation to justify these changes. Additionally, UW-M did not provide written notification to NSF of its changes, despite their increasing F&A costs by \$2.1 million. In the case of [REDACTED] it appears the subcontractor's objection to the subaward arrangement was the primary reason for UW-M's change, but [REDACTED] objection does not serve as adequate justification for the change. Thus, DCAA questioned the increased F&A costs UW-M claimed for the [REDACTED] and [REDACTED] subawards after the August 1, 2004 subaward start dates through completion. In questioning these increased costs, DCAA cited UW-M's accounting practice as being noncompliant with [REDACTED] and OMB Circular A-21 G.2, which state that subgrant and subcontract costs in excess of \$25,000 are to be excluded [REDACTED].

- UW-M improperly direct charged an employee's relocation costs to the IceCube cooperative agreement, so DCAA questioned \$6,785 accordingly. UW-M normally charges relocation costs as indirect F&A expenses. However, UW-M did not provide the justification required by its [REDACTED] [REDACTED] for charging the questioned relocation as direct costs. DCAA cited [REDACTED]

UW-M's accounting practice as noncompliant with CAS 502 (48 CFR 9905.502-40), which states that "all costs incurred for the same purpose, in like circumstances, are either direct costs only or indirect costs only with respect to final cost objectives." Further, DCAA notes that NSF's *Grant Policy Manual*, (7/1/05), Chapter VI, Item 624, states that relocation costs may be charged direct to an NSF grant provided that the proposal specifically indicates that the grantee intends to hire a named individual for full-time work on the project. However, the UW-M did not identify the employee in its proposal and, therefore, did not meet the NSF requirement for direct-charging the relocation expenses. As a result, DCAA questioned the \$6,785 charged directly to the NSF award.

- Although the scope of DCAA's audit did not include an examination of indirect costs, DCAA noted that UW-M commingled indirect F&A costs within an internal account and claimed indirect F&A expenses as direct costs on NSF's cooperative agreements. (Indirect F&A costs are included in direct cost element "Other Expenditures"). UW-M's proposals submitted to NSF identify indirect F&A costs as a separate line item. Therefore, DCAA cited this accounting practice as being noncompliant with CAS 501 [48 CFR 9905.501-40(b)], which states that "an educational institution's cost accounting practices used in accumulating and reporting actual costs for a contract shall be consistent with the institution's practices used in estimating costs in pricing the related proposal." Also, OMB Circular A-110 C.21.b.4 states that recipients' financial management systems shall provide for a comparison of outlays with budget amounts for each award. While UW-M stated that it generated monthly journal transactions that charged the IceCube projects the appropriate F&A expense and were clearly designated, DCAA stated that "identifying the F&A transactions was not consistent or clear," and that "some transfers included both direct costs and F&A costs combined in the total transfer amount. This would require UW-M to manually review each journal entry to identify the F&A costs included in the total transfer amount." However, UW-M was unable to provide a transactional detail breakout of F&A costs in a timely manner during the audit. Therefore, DCAA did not quantify the impact of the noncompliance in this incurred cost audit report. However, DCAA stated that its CAS noncompliance report would address the issues.

- UW-M's cooperative agreement budget includes nearly \$44 million of contingency costs. However, DCAA noted that the audit found that there is no document that ties the total contingency budget of \$43,960,372 to a detailed basis of estimate. Further, the report notes that UW-M's contingency budget was not designated for a specific type of event and that there was also an unexplained difference between the \$43,983,000 shown in the Appendix 2 Contingency Change Log and the \$43,960,372 contingency budget. DCAA also noted that they could not perform a separate evaluation of the incurred contingency costs for allowability, since the university was not required by NSF to maintain a separate record of its incurred contingency costs.

UW-M did not segregate and separately account for its expenditure of contingency funds in its accounting records, so there was no traceability or visibility for this significant cost element. When contingency funds were expended, UW-M commingled these expenditures among several direct cost elements and did not identify or maintain visibility of contingency costs, or differentiate the associated indirect F&A costs that resulted from expenditures of contingency funds. However, in the latest revision DCAA retracted its original opinion of noncompliance

that UW did not comply with CAS and OMB Circulars in accounting for its contingency expenditures.<sup>2</sup> However, although DCAA retracted that opinion, the fact remains that UW-M estimated contingency percentage factors for each WBS (Work Breakdown Structure) in its proposal budget to NSF. However, UW-M did not segregate and separately account for its expenditure of contingency funds in its accounting records to ensure that contingency outlays can be compared to budget amounts of contingencies, which is an important control to ensure federal funds were used properly. DCAA retracted its original opinion of noncompliance because it concluded that federal regulations do not specifically require contingency expenditures to be separately tracked in the accounting system, and there was no requirement in NSF's cooperative agreement to separately track those expenditures.

### **Scope Limitations**

DCAA qualified its audit report and stated that the results of audit are limited because UW-M is noncompliant with its disclosed cost accounting practices, OMB Circular A-21, OMB Circular A-110, CAS 501 and CAS 502. DCAA addresses these issues in its CAS Noncompliance Report.

The scope of DCAA's audit did not include an examination of indirect costs. UW-M claimed its indirect F&A costs as direct costs (as noted above), and DCAA tested only a limited number of indirect cost calculations using previously agreed upon indirect rates. Therefore, DCAA expressed no opinion on the indirect costs for the subject cooperative agreements.

### **Internal Control Weaknesses**

DCAA reported internal control weaknesses and made recommendations concerning UW-M's IceCube Change Control Process. Two internal control deficiencies are discussed below.

- *NSF approval of Change Requests.* The first internal control deficiency addressed NSF approval of Change Requests. DCAA recommended that UW-M forward all Class 1/Level 1 IceCube Change Request forms to NSF for approval and signature. This will ensure that NSF receives the same level of detail UW-M uses to internally approve changes and will document NSF's approval of the change, including the name of the NSF official and date of approval.
- *UW-M's IceCube Change Control Process.* DCAA recommended that UW-M revise its Change Control Process to clearly define those changes to total project costs that are considered Class1/Level1 changes requiring NSF approval.

### **UW-M's Comments and Auditor's Response**

UW-M agreed with the internal control findings, but disagreed with DCAA's audit findings relating to all other areas. DCAA considered UW-M's response in its final audit report, but did

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<sup>2</sup> Also, see the related OIG Report No. 13-1-003, Rev 1, *Supplement to Independent Audit of University of Wisconsin-Madison (UW-M), Noncompliance with CAS 501, 502 and its Disclosed Practices*, dated March 4, 2015.

not change its audit position. UM-W's reaction and DCAA's response are included in the attached report. DCAA discussed its 2014 report revisions with UW-M in an exit conference on April 1, 2014, but the University did not provide another written response to this report.

## **Recommendations**

We recommend that the NSF Director of the Division of Acquisition and Cooperative Support:

1. Resolve the \$2,134,379 in questioned travel and indirect F&A costs applied to subawards that were reclassified as professional services.
2. Require UW-M to correct the cited internal control weaknesses and implement the corrective actions noted in its response.

Recommendations addressing the noncompliance issues will be provided in DCAA's CAS noncompliance report.

We consider the issues in this report to be significant. In accordance with OMB Circular A-50, please coordinate with our office to develop a mutually agreeable resolution of the audit findings. Accordingly, we request that your office work with UW-M to develop a written Corrective Action Plan detailing specific actions taken and/or planned to address each report recommendation. Milestone dates should be provided for corrective actions not yet completed. Also, the findings should not be closed until NSF determines that the recommendation has been adequately addressed and the proposed corrective actions have been satisfactorily implemented.

We are providing a copy of this memorandum to NSF officials. The responsibility for audit resolution rests with DACS. Accordingly, we ask that no action be taken concerning the report's findings without first consulting DACS at (703) 292-8242.

## **OIG Oversight of Audit**

To fulfill our responsibilities to ensure that DCAA complied with Generally Accepted Government Auditing Standards, the Office of Inspector General:

- Reviewed DCAA's approach and planning of the audit;
- Monitored the progress of the audit at key points;
- Coordinated periodic meetings with DCAA and NSF officials as necessary to discuss audit progress, findings and recommendations;
- Reviewed the audit report prepared by DCAA to ensure compliance with Generally Accepted Government Auditing Standards and Office of Management and Budget Circulars; and
- Coordinated issuance of the audit report.

DCAA is responsible for the attached auditor's report on UW-M's incurred costs of IceCube cooperative agreements and the conclusions expressed in the report.

We thank you and your staff for the assistance extended to us during the audit. If you have any questions about this report, please contact Sherrye McGregor at (703) 292-5003 or Jannifer Jenkins at (703) 292-4996.

Attachment :

DCAA Audit Report No. 3541-2012W17900002-S1; *Supplement to Independent Audit of University of Wisconsin-Madison Incurred Costs of Cooperative Agreement Nos. ANT-0236449, ANT-0639286, and ANT-0937462 for the Period August 1, 2002 through June 30, 2011*, dated April 15, 2014.

cc: Richard Buckius, OD  
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