

NATIONAL SCIENCE FOUNDATION
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ARLINGTON, VIRGINIA 22230



OFFICE OF
INSPECTOR GENERAL

NOV 10 2007

TO: Arden L. Bement, Jr., Director
Director, National Science Foundation

Steven C. Beering, Chair
Chair, National Science Board

FROM: Dr. Christine C. Boesz
Inspector General 

SUBJECT: Audit of the National Science Foundation's
Fiscal Years 2007 and 2006 Financial Statements

This memorandum transmits Clifton Gunderson LLP's financial statement audit report of the National Science Foundation (NSF) for Fiscal Years 2007 and 2006.

Results of Independent Audit

The Chief Financial Officer's (CFO) Act of 1990 (P.L. 101-576), as amended, requires NSF's Inspector General or an independent external auditor, as determined by the Inspector General, to audit NSF's financial statements. Under a contract monitored by the Office of Inspector General (OIG), Clifton Gunderson, an independent public accounting firm (IPA), performed an audit of NSF's Fiscal Years 2007 and 2006 financial statements. The contract required that the audit be performed in accordance with the Government Auditing Standards issued by the Comptroller General of the United States, and Bulletin 07-04, *Audit Requirements for Federal Financial Statements*, issued by the United States Office of Management and Budget.

Clifton Gunderson issued an unqualified opinion on NSF's financial statements. In its Report on Internal Control over Financial Reporting, Clifton Gunderson identified two significant deficiencies related to NSF's contract monitoring and accounting and reporting for property, plant, and equipment. Clifton Gunderson also reported that there were no instances in which NSF's financial management systems did not substantially comply with the requirements of the Federal Financial Management Improvement Act of

1996 (FFMIA) , and found no reportable noncompliance with laws and regulations it tested.

Management's response, dated November, 10, 2007, follows Clifton Gunderson's report.

Evaluation of Clifton Gunderson's Audit Performance

To fulfill our responsibilities under the CFO Act of 1990, as amended, and other related financial management legislation, the OIG:

- Reviewed Clifton Gunderson's approach and planning of the audit;
- Evaluated the qualifications and independence of the auditors;
- Monitored the progress of the audit at key points;
- Coordinated periodic meetings with NSF management to discuss audit progress, findings, and recommendations;
- Reviewed Clifton Gunderson's audit report to ensure compliance with Government Auditing Standards and Office of Management and Budget Bulletin No. 07-04; and
- Coordinated issuance of the audit report.

Clifton Gunderson LLP is responsible for the attached auditor's report dated November 10, 2007, and the conclusions expressed in the report. We do not express any opinion on NSF's financial statements, internal control, conclusions on compliance with laws and regulations, or on whether NSF's financial management systems substantially complied with FFMIA.

The Office of Inspector General appreciates the courtesies and cooperation NSF extended to Clifton Gunderson LLP and OIG staff during the audit. If you or your staff have any questions, please contact me or Deborah H. Cureton, Associate Inspector General for Audit.

Attachment

cc: Dr. Dan E. Arvizu, Chair Audit and Oversight Committee

INDEPENDENT AUDITOR'S REPORT

Dr. Christine C. Boesz
Inspector General, National Science Foundation

Dr. Steven Beering
Chairman, National Science Board

Dr. Arden L. Bement, Jr.
Director, National Science Foundation

In our audit of NSF for fiscal year (FY) 2007 we found:

- The NSF financial statements are presented fairly, in all material respects, in conformity with accounting principles generally accepted in the United States of America;
- No material weaknesses in internal control over financial reporting (including safeguarding assets) and compliance with laws and regulations;
- Progress has been made in FY 2007 on the two control deficiency conditions noted in the FY 2006 auditor's report; however, certain matters relating to one of those conditions continue to exist and are reported herein as a significant deficiency. In addition a second significant deficiency was noted during our FY 2007 audit;
- No instances of noncompliance with the Federal Financial Management Improvement Act of 1996 (FFMIA);
- No instances of noncompliance with laws and regulations.

The following sections discuss in more detail: (1) these conclusions, (2) our conclusions on Management's Discussion and Analysis and other supplementary information, (3) our audit objectives, scope and methodology, and (4) agency comments and evaluation.

OPINION ON FINANCIAL STATEMENTS

The accompanying financial statements including the accompanying notes present fairly, in all material respects, in conformity with accounting principles generally accepted in the United States, NSF's assets, liabilities, and net position as of September 30, 2007 and 2006; and net costs; changes in net position and budgetary resources for the years then ended.

CONSIDERATION OF INTERNAL CONTROL

In planning and performing our audit, we considered NSF's internal control over financial reporting as a basis for designing our auditing procedures and to comply with the Office of Management and Budget (OMB) audit guidance for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control over financial reporting. Accordingly, we do not express an opinion on the effectiveness of the entity's internal control over financial reporting.

Our consideration of internal control over financial reporting was for the limited purpose described in the preceding paragraph and would not necessarily identify all deficiencies in internal control over financial reporting that might be significant deficiencies or material weaknesses. However, as discussed below, we identified certain deficiencies in internal control over financial reporting that we consider to be significant deficiencies which adversely affect NSF's ability to meet the internal control objectives listed in the objectives, scope, and methodology section of this report, or meet OMB criteria for reporting matters under FMFIA.

A control deficiency exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent or detect misstatements on a timely basis. A significant deficiency is a control deficiency, or combination of control deficiencies, that adversely affects NSF's ability to initiate, authorize, record, process, or report financial data reliably in accordance with generally accepted accounting principles such that there is more than a remote likelihood that a misstatement of the entity's financial statements that is more than inconsequential will not be prevented or detected by the entity's internal control. We consider the two deficiencies described in **Exhibit I** to be significant deficiencies in internal control over financial reporting.

A material weakness is a significant deficiency, or combination of significant deficiencies, that results in more than a remote likelihood that a material misstatement of the financial statements will not be prevented or detected by the entity's internal control. None of the significant deficiencies described in **Exhibit I** are considered material weaknesses.

As required by OMB Bulletin No. 07-04, *Audit Requirements for Federal Financial Statements*, we considered NSF's internal control over Required Supplementary Stewardship Information by obtaining an understanding of the component's of NSF's internal control, determining whether these internal controls had been placed in operation, assessing control risk, and performing tests of controls. Our procedures were not designed to provide assurance on these internal controls. Accordingly, we do not provide an opinion on such controls.

As further required by OMB Bulletin No. 07-04, with respect to internal control related to performance measures reported in the Management Discussion and Analysis, we obtained an understanding of the design of significant internal controls relating to the existence and completeness assertions and determined whether they had been placed in operation. Our procedures were not designed to provide assurance on internal control over reported performance measures and, accordingly, we do not provide an opinion on such controls.

We also noted other matters involving internal control and its operation that are not considered significant deficiencies, but are communicated in a separate management letter.

SYSTEMS' COMPLIANCE WITH FFMIA REQUIREMENTS

Under the Federal Financial Management Improvement Act of 1996 (FFMIA), we are required to report whether the financial management systems used by NSF substantially comply with the Federal financial management systems requirements, applicable Federal accounting standards, and the United States Standard General Ledger (SGL) at the transaction level. To meet this requirement, we performed tests of compliance with FFMIA Section 803(a) requirements.

The objective of our audit was not to provide an opinion on compliance with FFMIA. Accordingly, we do not express such an opinion. However, our work disclosed no instances in which NSF's financial management systems did not substantially comply with Federal financial management systems requirements, Federal accounting standards or the SGL at the transaction level.

COMPLIANCE WITH LAWS AND REGULATIONS

Our tests for compliance with selected provisions of laws and regulations disclosed no instances of noncompliance that would be reportable under Government Auditing Standards or OMB audit guidance. However, the object of our audit was not to provide an opinion on overall compliance with laws and regulations. Accordingly, we do not express such an opinion.

STATUS OF PRIOR YEAR'S CONTROL DEFICIENCIES

As required by *Government Auditing Standards* and OMB Bulletin No. 07-04, we have reviewed the status of NSF's corrective actions with respect to the findings and recommendations included in the prior year's Independent Auditor's Report dated November 6, 2006. The prior year audit report noted two control deficiencies: 1) *Post-Award Oversight for High Risk Grants and Cooperative Agreements* and 2) *Contract Monitoring*. NSF management has implemented substantial changes to its Post-Award Oversight policies and procedures and, accordingly, the prior year finding is not considered a Significant Deficiency for purposes of this report. However, continued improvement is needed in Contract Monitoring policies and procedures, and it is included in this report (**Exhibit I**) as Significant Deficiency number one.

CONSISTENCY OF OTHER INFORMATION

Management's Discussion and Analysis, required supplementary information (including stewardship information), and other accompanying information contain a wide range of data, some of which are not directly related to the financial statements. We do not express an opinion on this information. However, we compared this information for consistency with the financial statements and discussed the methods of measurement and presentation with NSF officials. Based on this limited work, we found no material inconsistencies with the financial statements, accounting principles generally accepted in the United States, or OMB guidance.

OBJECTIVES, SCOPE AND METHODOLOGY

Management is responsible for (1) preparing the financial statements in conformity with accounting principles generally accepted in the United States, (2) establishing, maintaining, and assessing internal control to provide reasonable assurance that the broad control objectives of the Federal Managers' Financial Integrity Act (FMFIA) as codified in 31 U.S.C. 3512, are met, (3) ensuring that NSF's financial management systems substantially comply with FFMIA requirements, and (4) complying with other applicable laws and regulations.

We are responsible for obtaining reasonable assurance about whether the financial statements are presented fairly, in all material respects, in conformity with accounting principles generally accepted in the United States. We are also responsible for: (1) obtaining a sufficient understanding of internal control over financial reporting and compliance to plan the audit, (2) testing whether NSF's financial management systems substantially comply with the three FFMIA requirements, (3) testing compliance with selected provisions of laws and regulations that have a direct and material effect on the financial statements and laws for which OMB audit guidance requires testing, and (4) performing limited procedures with respect to certain other information appearing in the Annual Financial Report.

In order to fulfill these responsibilities, we (1) examined on a test basis, evidence supporting the amounts and disclosures in the financial statements, (2) assessed the accounting principles used and significant estimates made by management, (3) evaluated the overall presentation of the financial statements, (4) obtained an understanding of NSF and its operations, (including safeguarding of assets), compliance with laws and regulations (including execution of transactions in accordance with budget authority), and performance measures reported in Management's Discussion and Analysis of the Annual Financial Report, (5) tested relevant internal controls over financial reporting, and compliance, and evaluated the design and operating effectiveness of internal control, (6) considered the process for evaluating and reporting on internal control and financial management systems under FMFIA, (7) tested whether NSF's financial management systems substantially complied with the three FFMIA requirements, and (8) tested compliance with selected provisions of certain laws and regulations.

We did not evaluate all internal controls relevant to operating objectives as broadly defined by the FMFIA, such as those controls relevant to preparing statistical reports and ensuring efficient operations. We limited our internal control testing to controls over financial reporting and compliance. Because of inherent limitations in internal control, misstatements due to error or fraud, losses, or noncompliance may nevertheless occur and not be detected. We also caution that projecting our evaluation to future periods is subject to risk that controls may become inadequate because of changes in conditions or that the degree of compliance with controls may deteriorate. In addition, we caution that our internal control testing may not be sufficient for other purposes.

We did not test compliance with all laws and regulations applicable to NSF. We limited our tests of compliance to those laws and regulations required by OMB audit guidance we deemed applicable to the financial statements for the fiscal year ended September 30, 2007. We caution

that noncompliance with laws and regulations may occur and not be detected by these tests and that such testing may not be sufficient for other purposes.

We performed our audit in accordance with auditing standards generally accepted in the United States; the standards applicable to the financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and OMB Bulletin No. 07-04, *Audit Requirements for Federal Financial Statements*.

AGENCY COMMENTS AND OUR EVALUATION

We have considered management's response (**Exhibit II**) and have concluded that no change is needed to our original findings, conclusions, or recommendations. We will evaluate the status of these findings during the FY 2008 audit.

This report is intended solely for the information and use of NSF's management, the National Science Board, NSF's Office of Inspector General, OMB, the Government Accountability Office, and the U.S. Congress, and is not intended to be, and should not be, used by anyone other than these specified parties.

Clifton Henderson LLP

Calverton, Maryland
November 10, 2007

**NATIONAL SCIENCE FOUNDATION
CONSIDERATION OF INTERNAL CONTROL
SIGNIFICANT DEFICIENCIES
September 30, 2007**

1. Contract Monitoring

Background:

In our fiscal year (FY) 2006 audit report we noted that NSF had significant weaknesses in its contract monitoring policies and procedures and, accordingly, we made three recommendations for improvement. Specifically we found that NSF did not have a comprehensive, risk-based system, including detailed post-award policies and procedures, in place to oversee and monitor its contract awards. In FY 2007, NSF expended approximately \$551 million on active contracts and interagency agreements for the delivery of products and services. Of this amount, \$212 million was disbursed through advance payment programs with three contractors, including \$148 million for logistical support of the U.S. Antarctic Program (USAP).

Conditions:

Although NSF has made some progress in addressing our FY 2006 recommendations, additional improvements are needed. The following paragraphs describe the changes NSF has made in FY 2007, and the specific conditions that continue to exist at September 30, 2007.

Quarterly Expenditure Report Reviews - NSF contracts with the Defense Contract Audit Agency (DCAA) to perform Quarterly Expenditure Report reviews (QER review program) for the three advance payment contractors. The QER's were performed based on an agreed upon set of procedures that included reconciling billing rates with the contractor's accounting system and contract rates. The QER reviews also compared accuracy of amounts to the contractor's accounting system. However, these reviews are not an adequate substitute for a comprehensive, risk-based system which is needed to provide management with material assurance that costs paid by NSF are valid and reasonable.

OIG Cost Incurred Reports - DCAA, under contract with the OIG, performed audits of costs incurred by NSF's largest contractor for the FYs 2000 through 2004. The cost incurred audits are an important tool to be used by management to assess overall contractor compliance with financial terms and conditions. These reports, issued in October 2005 and September 2006, identified over-billings, internal control weaknesses, and questioned costs of \$55.5 million. NSF has not taken final action to address \$35 million of these questioned costs. Since the findings in these prior year audits had not been resolved, further audits have not yet been performed for FY 2005 through 2007. Accordingly, based on the results to date, further questioned costs are likely.

Contracts Manual - In FY 2007, NSF updated its contract manual to include some specific policies and procedures for contract administration. Though such updates included some procedures for pre-award acquisition and contract administration planning, the changes were not

sufficiently comprehensive to meet the objectives of Federal requirements for contract oversight. NSF needs to develop procedures to include in-depth policy and guidance for implementing contract monitoring activities. For example, NSF needs to create a thorough process to assess contractual risk and implement risk mitigation plans to ensure that the requirements of the contracts are being met. Without a comprehensive set of controls in place to assess the risks faced from both external and internal sources, NSF cannot ensure that its contractors use Federal funds consistently with the objectives of the contract, and that funds are protected from waste, fraud, or mismanagement.

Effectiveness of Oversight Procedures - During our FY 2007 audit, we continued to find that NSF's oversight and contract monitoring activities were not completely effective. Specifically, we noted the following:

- NSF provided funds to a contractor without approving its annual program plan (APP). This plan establishes the authorized work and budget for the contract. The USAP contractor submitted its FY 2007 APP to NSF on September 15, 2006 for NSF's approval by September 30, 2006. However, NSF did not approve the APP until November 6, 2006 because of the uncertainty over the FY 2007 continuing resolution. Consequently, even though the contractor was provided with a temporary "not-to-exceed" funding level of \$144 million beginning October 1, 2006, the contractor was technically operating in FY 2007 without an officially approved APP. Providing funds to a contractor without an approved APP may result in the contractor performing work which NSF would not have authorized.
- NSF's largest contractor did not submit its contractually required monthly financial report. This report provides detailed budget and financial information for each project as detailed in the APP. Without such reports, NSF could not determine that the contractor spent contract funds as authorized.
- During our FY 2007 audit, we tested 49 procurement transactions. We noted several exceptions in our document review such as incomplete contract files, missing procurement documentation and recording errors. The exceptions noted in this limited sample testing are an indication that the untested population may have similar deficiencies. The specific exceptions noted are summarized as follows:
 - NSF was not able to provide the documentation evidencing the contracting officer's justification and approval of a sole source contract (a simplified acquisition exceeding \$100,000), or any research conducted to rationalize the fact that NSF precluded another supplier from providing services. In addition, the actual rationale used for sole source recommended by an IT specialist was brief and vague. Management was unable to provide all relevant documentation as required to be maintained by the Federal Acquisition Regulation (FAR). Noncompetitive procurements are vulnerable to fraud, abuse and waste.
 - In one of the procurement files tested, we noted the purchase order amount recorded in the general ledger exceeded the authorized purchase order. In addition, the requester and approver of the purchase requisition (PR) was the same individual,

and the PR was neither signed nor dated. Without appropriate segregation of duties, the risk that the procurement may be fraudulent increases.

- In one of the procurement files tested, NSF was not able to provide the PR to support the amount of commitment recorded in the general ledger. Without support documentation, the transactions recorded in the general ledger\financial statements may be inaccurate.
 - NSF did not calculate and make appropriate interest payments, in accordance with the Prompt Payment Act (PPA), for one invoice that was paid approximately two months after the payment due date. Without an automated invoice approval and payment tracking system, the risk of unnecessary interest payments and non-compliance with the Prompt Payment Act increases.
 - In seven procurement files examined, the incorrect object class code was used to record the transactions in the general ledger. These type errors could result in incorrect comparisons of actual to budget data, which OMB uses in its analysis of NSF's operations.
- The OIG also performed a review of certain aspects of NSF's contract monitoring processes, and its report dated October 1, 2007 noted similar weaknesses in NSF's contract monitoring program.

In summary, even though our testing did not result in material adjustments to NSF's financial statements, NSF's procedures were not adequate to ensure that contractors used NSF funds consistent with the objectives of the contract. In addition, contract funds may not have been adequately protected from waste, fraud, and mismanagement; laws and regulations may not have been followed; and reliable financial reports were not obtained for analysis.

Recommendations: We recommend that NSF management:

- 1) Approve the APPs prior to providing funds to the contractor, and modify the plan according to the final appropriation, if different from the original APP.
- 2) Expand the contract oversight program to include comprehensive post-award monitoring policies and procedures and training to ensure that the requirements of the contracts are being met. The policies and procedures should specifically include a methodology for identifying high risk contracts and instituting additional oversight and monitoring to address these risks.
- 3) Implement guidance in the contracts manual to ensure that a thorough review of contract folder is performed, and that documentation is complete without any material discrepancies between documents. In addition, the manual should emphasize the importance of approval for all procurement actions that are other than "full and open competition." Also, procedures to ensure a proper segregation of duties must be clearly described in the manual.
- 4) Continue the Quarterly Expenditure Report review program, but supplement that program by continuing to expand procedures detailed in the contracts manual. Additional testing

should be performed on the higher risk contracts and should also include testing to identify unreasonable and unrelated costs.

- 5) Resolve the outstanding OIG audits of NSF's largest contractor for FY 2000-2004. Coordinate with the OIG to determine the need for incurred cost audits for FYs 2005 through 2010, the end of the current contract.
- 6) Implement a system to track the status of the invoice from the invoice receipt to payment processing. The system should notify management of invoices that have not been processed using the PPA requirement to ensure the timely review by approving officials. In addition, when the invoice passes the 30 day payment deadline (unless specified otherwise), the system should calculate interest automatically and apply it to all vendor invoices processed for payment in excess of 30 day requirement.
- 7) Provide training to all employees (Approving Official, COTR, Administrative Officer, etc.) responsible for the acceptance of services and/or goods, reemphasizing due diligence responsibility for the timely review and payment of invoices.
- 8) Implement recommendations stated in the OIG's letter relating to contract monitoring dated October 1, 2007.

2. Property Plant & Equipment (PP&E) Accounting and Reporting

Background:

The Contract Monitoring finding in our FY 2006 audit report identified improvements needed in NSF's monitoring of its contractor responsible for approximately \$379 million of Property Plant and Equipment (PP&E) in Antarctica. NSF has made some progress this year; however, NSF's oversight of this contractor's acquisition and management of PP&E purchased with NSF funds continues to need improvement.

In response to our FY 2006 recommendations, NSF engaged a consultant to evaluate the feasibility of obtaining source documentation for acquisitions prior to FY 2007, as well as to validate a sample of FY 2007 property acquisitions and disposals. The consultant concluded that, based on information provided by the contractor, the cost to obtain supporting documentation for pre FY 2007 acquisitions exceeded the benefits. The consultant's work to validate FY 2007 property acquisitions and disposals did not identify any material exceptions. We performed a variety of internal control and substantive audit procedures, more extensive than those performed by the consultant, and identified several weaknesses in internal control.

Accordingly, due to NSF's extensive reliance on the contractor; the numerous, nonintegrated systems and manual processes used to account for property; the complexity and manual nature of the freight cost model; difficulties in obtaining supporting documentation of property transactions from its contractors; and errors that our testing identified; we consider these PP&E accounting and reporting weaknesses to collectively be a separate Significant Deficiency this year.

The continued weaknesses are detailed in the following areas:

- PP&E Transaction Processing
- Non-Integrated USAP PP&E Systems
- Freight Cost Model (FCM)

Each of these conditions is discussed separately below.

Conditions:

PP&E Transaction Processing

Our testing identified several exceptions related to timeliness of recording, lack of supporting documentation, and lack of proper authorization. Even though material adjustments were not needed to the property accounts at September 30, 2007, internal controls were not adequate to ensure reliability of reported PP&E balances.

Specifically, we noted a number of exceptions, listed below, which raise concerns about the adequacy of NSF's controls over financial reporting of PP&E activity.

- In 14 of the 48 transactions examined, the PP&E amounts were not recorded timely in the property accounts. Some transactions were recorded several months or years after the financial event occurred.
- We noted that certain accumulated Construction in Process costs, which should have been transferred to Real Property accounts when the asset was placed in service, were not transferred. Accordingly, NSF made a \$107 million adjustment to transfer Construction in Process to Real Property accounts in FY 2007, four years after the buildings were occupied. This adjustment represented over 70% of the existing balance of CIP.

Additionally, 3 of 16 Construction in Process to Real Property transfers tested were not supported by a signed conditional occupancy certificate, as required by NSF policy. Approved conditional occupancy certificates document substantial completion and safe condition for occupancy. Without these certificates, buildings may be occupied before they are ready for occupancy or buildings that may be ready for use may remain idle. In addition, the wrong asset category may be used in the accounting system affecting reported balances of both Construction in Process and Real Property accounts.

- In 1 of the 8 Construction in Process transactions examined, the employee's salary adjustment for labor costs relating to the project was not signed by the authorized official. Therefore, NSF does not have assurance that the labor charged to Construction in Process accounts benefited the NSF contract, and was charged at the correct rate.
- In 3 of the 16 Real Property demolition transactions examined, there were some email communications on the proposed demolition; however, it is unclear whether the demolitions were actually authorized because a final acceptance certificates for the asset demolition was not prepared.

- In 9 of the 24 Capital Equipment transactions examined, we noted one instance of missing purchase requisition and purchase orders. Therefore, it is unclear if the purchase was authorized. We also noted two instances of improperly calculated and recorded freight cost model amounts, which affects the accuracy of the amounts reported on the financial statements. Finally we noted six instances of two different NSF ID numbers (asset identifier) assigned to the same piece of equipment which impairs accountability of these assets

Non-Integrated USAP PP&E Systems

NSF and its contractor use at least five systems to capture and report PP&E activities for the USAP. Financial information from these systems is not integrated with NSF's general ledger system, Financial Accounting System. In addition, a majority of USAP PP&E financial activities are recorded using software owned by the Contractor that NSF may not have access to or a license to use after the contract expires in 2010.

The lack of an integrated PP&E system to track financial activities results in the contractor and NSF personnel performing a variety of manually intensive and time consuming procedures, which are prone to errors, to generate information for NSF's financial statements. For example, we noted that certain data elements take several months to process, and it takes a substantial amount of time for the contractor to provide supporting documentation to management and auditors for property transactions during the year. In addition, NSF management cannot record these assets until it receives the manually generated reports from the contractor resulting in inaccurate expense and asset reporting during a majority of the year. An integrated PP&E system would ultimately improve the integrity, accuracy, accountability, completeness, and timeliness of reporting PP&E activities in NSF's financial statements.

In summary, the PP&E accounting systems used by NSF and its contractor, combined with the manual processes performed to record PP&E, pose an abnormally high risk that financial data supporting the PP&E balances may be inaccurate, which could result in NSF's financial statements being misstated throughout the year.

Freight Cost Model (FCM)

NSF uses the Freight Cost Model (FCM) to calculate the cost of transporting PP&E to the Antarctic and is another example of the manual nature of NSF's property accounting process. The FCM, developed in 1997, is a complicated analysis prepared using Excel. The FCM is updated annually, using an average of the previous three years' rates to compute the rate for the current year. Maintaining this model requires significant contractor resources.

The data used in the FCM is derived from information (i.e. manual spreadsheets, third party reports, and e-mails, etc.) obtained from various groups including NSF management, its Contractor, and third parties. Consequently, compiling the data for the FCM is a lengthy and cumbersome process, and it is not conducive to providing timely reporting to NSF of PP&E freight activities and balances for its financial statements. In addition, since the Excel file can be easily manipulated, the results are prone to both data entry and calculation errors.

Recommendations:

Our recommendations are summarized pursuant to the three areas of concern as follows:

PP&E Transaction Processing Oversight

1. We recommend that management continue to validate a sample of assets acquisitions and disposals each year. This process should include comparing amounts reported in the PP&E accounts to detailed supporting documentation provided by the contractor on a test basis throughout the year (sampling both large and smaller purchases).

The validation program should also include tests of internal controls implemented by the contractor, such as a determination of proper authorizations, proper property categorization and valuation, proper tracking/tagging of assets, and timeliness of recording transactions in the accounting system, etc. As applicable, management should ensure that appropriate managerial cost accounting principles used in costing items are reviewed periodically for reasonableness.

The validation process for future years should initially test 75 % of the year's property activity; however, as the nature and extent of exceptions decline, such coverage could be reduced. Documentation and other data reviewed during this validation process should be electronically maintained by NSF. In addition, until the current FCM is revised, management should continue to examine documentation supporting the calculations used.

2. We recommend that management consider obtaining independent cost appraisals for any specific large construction or completed building projects where actual cost documentation is not readily available, or if it appears that the Construction in Process or Real Property no longer functions as originally intended or is no longer safe for use.
3. We recommend that NSF periodically confirm with the contractor the status and availability for use of property under construction.
4. We recommend that management include a provision in the next contract requiring the contractor to provide electronic copies of all significant documentation supporting the cost of property transactions.

Integrated PP&E Accounting System for USAP

5. We recommend that NSF develop a plan to implement an integrated entity-wide property management system that would fully automate the recording, tracking, and analysis of all PP&E accounting processes. Due to the materiality of the Antarctic program (USAP), the plan should consider incorporating a requirement in the upcoming USAP Statement of Work for the contractor to provide an accounting system for PP&E in the Antarctic to support the entity-wide system. The total NSF

property system should include an interface with NSF's general ledger and allow ready access to those requiring financial information of property transactional activity. To accomplish this interface with the general ledger, the transaction code structure in the general ledger will need to be revised.

6. Prior to 2010, NSF should ensure that if the current contractor is not selected to continue its USAP service that NSF will have access to, or a license to use, the existing software while a new property management system is being implemented.

Freight Cost Estimation Model

7. We recommend that management implement procedures to streamline the calculation of the FCM and improve the accuracy and timeliness of reporting transportation costs to the Antarctic. Changes to the FCM should not wait until the integrated accounting system, recommended above, is implemented. The revised methodology should be reviewed annually to ensure continued relevance of the managerial cost accounting methodology, and that the assumptions and calculations used in the developing and maintaining the model are reasonable.

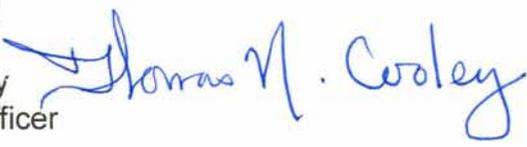
**NATIONAL SCIENCE FOUNDATION
MANAGEMENT'S RESPONSE TO FY 2007
INDEPENDENT AUDITOR'S REPORT
November 10, 2007**

NATIONAL SCIENCE FOUNDATION

4201 WILSON BOULEVARD
ARLINGTON, VIRGINIA 22230

NOV 10 2007

To: Christine C. Boesz
Inspector General

From: Thomas N. Cooley 
Chief Financial Officer

Subject: Management's Response to Independent Auditor's Report for
Fiscal Year 2007

I welcome the National Science Foundation's (NSF) Audit Report for its Fiscal Year (FY) 2007 Financial Statements. For the tenth consecutive year we have achieved a clean opinion on the Financial Statements.

The achievement of this unqualified opinion was due to the high level of technical expertise, and commitment demonstrated by both of our organizations. During the audit process, NSF worked in partnership with the audit team to provide timely and constructive information to improve our financial reporting.

The years of hard work by NSF in developing and strengthening our post award monitoring program reached an important milestone. I am proud of NSF's achievement in closing the FY 2006 Reportable Condition on "Post-Award Oversight for High Risk Grants and Cooperative Agreements".

NSF concurs with the significant deficiencies described in your report. The Foundation continued to make progress during FY 2007 in addressing financial management deficiencies in contract monitoring and property, plant and equipment accounting and reporting. Corrective actions are either underway or will be in place to address each one of these issues. NSF will provide a detailed corrective action plan that highlights its activities to resolve these matters.

The Foundation is committed to continuing efforts to improve management over agency programs and to better serve our stakeholders and taxpayers. We appreciate the continuing professional, cooperative relationship that exists with both Clifton Gunderson and the Office of Inspector General.

copies: Dr. Arden L. Bement, Jr.
Dr. Kathie Olsen

