

**NATIONAL SCIENCE FOUNDATION**  
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**OFFICE OF  
INSPECTOR GENERAL**

Office of Inspector General

**MEMORANDUM**

Date: March 4, 2010

To: Mary F. Santonastasso, Director  
Division of Institution and Award Support

Karen Tiplady, Director  
Division of Grants and Agreements

Thru: Jannifer Jenkins  
Senior Audit Manager

From: Billy McCain  
Audit Manager

Subject: Audit Report No. OIG-10-1-007  
NEES Consortium, Inc.

Attached is the final audit report, prepared by Mayer Hoffman McCann P.C., an independent public accounting firm, on the audit of NSF Award Number CMMI-0402490 awarded to NEES Consortium, Inc. (NEESinc). The audit covers NSF-funded costs claimed from October 1, 2004 to December 31, 2008, aggregating to approximately [REDACTED] of NSF direct funded costs. NEESinc was selected for audit because of the high dollar value of the NSF award; the collaborative nature of the award; the significant issues identified in the results of NSF's monitoring site visit in March 2005 and NSF's Total Business System Review (TBSR) of NEESinc in May 2006, along with NSF officials' dissatisfaction with NEESinc's programmatic progress and NSF's subsequent decision to phase-out and re-compete the award.

Overall the auditors determined that the costs claimed by NEESinc and its subawardees under NSF award number CMMI-0402490 appear fairly stated and are allowable, allocable and reasonable for the NSF award. In addition, the majority of the recommendations made in NSF's prior reviews had been addressed. The auditors identified three compliance and internal control

deficiencies in NEESinc's financial management practice that we are reporting to NSF to make them aware of in regards to NEESinc's fiscal operations. Specifically:

- Although NEESinc did some monitoring of its subaward costs charged to NSF award number CMMI-0402490, which included nineteen subawards amounting to [REDACTED] of the total costs charged to the NSF award (of which [REDACTED] were equipment costs), NEESinc's fiscal monitoring process to a great extent relies on the controls and self-assessments made by its subawardees to ensure that the subaward costs claimed are reasonable, allowable and allocable to its NSF award, and that equipment and property purchased with NSF funds are properly tracked and safeguarded. This condition was also noted prior audits and NSF management reviews. Therefore, we performed additional audit tests at four of the nineteen subawardees to validate subaward costs claimed and ensure that equipment was properly tracked and safeguarded. We determined that one subawardee purchased equipment for the NEESinc Program but did not accurately record the equipment in its inventory system. Although there were no questioned costs as a result of this condition that was subsequently corrected during our audit, additional required routine subaward monitoring could prevent or identify any potential or actual problems or errors in the subawardees' inventory records.
- NEESinc did not have an adequate internal control process for documenting the review and approval of fringe benefit and indirect cost allocations, cash drawdowns, and, Federal financial reconciliation and reporting. Although NEESinc appears to have implemented a process to adequately perform these functions and properly segregated these duties, there is no evidence or documentation of the reviews and approvals being performed by NEESinc personnel. We did not find any exceptions or questioned costs from our testing of these processes. However, if adequate internal controls are not established to ensure that the review and approval of these processes are taking place, NSF funds may not be properly accounted for and reported, and also could be subject to mismanagement.
- NEESinc did not have written policies and procedures on employee timekeeping and labor cost distributions, as well as participant support costs. Although NEESinc has proper practices in place to adequately perform these functions, these practices were not detailed in writing. This finding was also identified in prior NSF management reviews. We did not find any exceptions or questioned costs from our tests of labor costs and participant support costs. However, without written policy and procedures, established controls, policies and procedures may not be clearly and effectively communicated to and followed by all levels of employees, particularly when there is employee or management turnover.

NEESinc, in its response to the draft report dated February 24, 2010, disagreed with the three findings and stated that, while there are areas of improvement in its subaward monitoring system, many of the prior recommendations made by NSF were mostly implemented or being implemented. NEESinc also stated that it believes it has sufficient compensating controls in place to overcome the deficiencies identified in this report, which is further evidenced in that no questioned costs were identified. NEESinc's response is included in its entirety in Appendix A.

We believe that NEESinc's internal control over subaward monitoring is a material weakness in that those costs represent 86% of the costs claimed by NEESinc and that NEESinc's controls over subawardees were not effective or fully implemented. We also agree that the processes that NEESinc verbally described over management review, employee timekeeping, labor cost allocations and participant support costs appear adequate, but they were not always evidenced in writing or incorporated in written policies and procedures, as required in NEESinc's federal award conditions.

Since NEESinc will be dissolved and will not be directed to correct the compliance and internal control deficiencies identified from our audit, we do not make any recommendations to NEESinc for the findings identified. However, we believe the same deficiencies, if existing at the entity to be managing the NEES Project or at any newly established NSF awardee, could adversely affect NSF awards in the future. Therefore, we made several suggestions to NSF (see Appendix C – Other Matters), which we feel would enhance NSF's pre-award process and overall award portfolio management process.

We are providing a copy of this memorandum to the Division Director, Deputy Director, and Program Director in the Division of Civil, Mechanical, and Manufacturing Innovation (ENG/CMMI).

#### OIG Oversight of Audit

To fulfill our responsibilities under Government Auditing Standards, the Office of Inspector General:

- Reviewed Mayer Hoffman McCann'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 Mayer Hoffman McCann and NSF officials, as necessary, to discuss audit progress, findings, and recommendations;
- Reviewed the audit report, prepared by Mayer Hoffman McCann to ensure compliance with Government Auditing Standards; and
- Coordinated issuance of the audit report.

Mayer Hoffman McCann is responsible for the attached auditor's report on NEESinc and the conclusions expressed in the report. We do not express any opinion on the Schedule of Award Cost, internal control, or conclusions on compliance with laws and regulations.

We thank your staff for the assistance that was extended to our auditors during this audit. If you have any questions regarding this report, please contact me at 703-292-4989.

Attachment

cc: Dr. Steven McKnight, Division Director, ENG/CMMI  
Dr. George Hazelrigg, Deputy Division Director, ENG/CMMI  
Dr. Joy Pauschke, Program Director, ENG/CMMI

**NEES CONSORTIUM, INC.**  
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NATIONAL SCIENCE FOUNDATION  
AWARD NUMBER CMMI-0402490

FINANCIAL AUDIT OF FINANCIAL SCHEDULES AND  
INDEPENDENT AUDITORS' REPORT  
FROM OCTOBER 1, 2004 TO DECEMBER 31, 2008

**MAYER HOFFMAN McCANN P.C.**  
**Conrad Government Services Division**  
Certified Public Accountants  
2301 Dupont Drive, Suite 200  
Irvine, California 92612

## EXECUTIVE SUMMARY

An audit was performed on [REDACTED] in costs claimed as reported on the December 31, 2008 Federal Financial Report (FFR) submitted to NSF by NEES Consortium, Inc. (NEESinc) on NSF award number CMMI-0402490. Our purpose was to determine whether the costs claimed by NEESinc and its subawardees for the NSF award appear fairly stated in the Schedule of Award Costs; NEESinc's financial compliance and internal controls provided NEESinc the ability to properly administer, account for and manage its NSF award; NEESinc adequately monitors its subawards; and NEESinc implemented prior NSF review recommendations.

NEESinc is a non-profit organization that manages, operates and maintains the national George E. Brown Jr. Network for Earthquake Engineering Simulation (NEES) Project. NEESinc functions as the coordinator of all NEES financial administration and is responsible for operating and coordinating the NEES network's activities at the 15 large-scale experimental sites and collaborating with various organizations and other interested parties working together on a common initiative. Originally, NEESinc was awarded approximately \$107 million under award number CMMI-0402490 from October 1, 2004 through September 30, 2009, with an option to extend the award through 2014. However, in November 2007, NSF decided not to extend, but instead to reduce the award to approximately \$95 million and provide the award to another entity. NEESinc's phase-out period began on January 1, 2008. After the phase-out period, NEESinc will be dissolved.

[REDACTED]

We determined that the costs claimed by NEESinc and its subawardees under the NSF award appear fairly stated and are allowable, allocable and reasonable for the NSF award. In addition, the majority of the recommendations made in NSF's prior reviews had been addressed. However, we noted three compliance and internal control deficiencies in NEESinc's financial management practice that we are reporting to NSF to ensure that those deficiencies do not exist in the subsequent awardee's operations. Specifically:

- Although NEESinc did some monitoring of its subaward costs charged to NSF award number CMMI-0402490, which included nineteen subawards amounting to [REDACTED] of the total costs charged to the NSF award (of which [REDACTED] were equipment costs), NEESinc's fiscal monitoring process to a great extent relies on the controls and self-assessments made by its subawardees to ensure that the subaward costs claimed are reasonable, allowable and allocable to its NSF award, and that equipment and property purchased with NSF funds are properly tracked and safeguarded. This condition was also noted prior audits and NSF management reviews. Therefore, we performed additional audit tests at four of the nineteen subawardees to validate subaward costs claimed and ensure that equipment was properly tracked and safeguarded. We determined that one subawardee purchased equipment for the NEESinc Program but did not accurately record the equipment in its inventory system. Although there were no questioned costs as a result of this condition that were subsequently corrected during our audit, additional required routine subaward monitoring

could prevent or identify any potential or actual problems or errors in the subawardees' inventory records.

- NEESinc did not have an adequate internal control process for documenting the review and approval of fringe benefit and indirect cost allocations, cash drawdowns, and, Federal financial reconciliation and reporting. Although NEESinc appears to have implemented a process to adequately perform these functions and properly segregated these duties, there is no evidence or documentation of the reviews and approvals being performed by NEESinc personnel. We did not find any exceptions or questioned costs from our testing of these processes. However, if adequate internal controls are not established to ensure that the review and approval of these processes are taking place, NSF funds may not be properly accounted for and reported, and also could be subject to mismanagement.
- NEESinc did not have written policies and procedures on employee timekeeping and labor cost distributions, as well as participant support costs. Although NEESinc has proper practices in place to adequately perform these functions, these practices were not detailed in writing. This finding was also identified in prior NSF management reviews. We did not find any exceptions or questioned costs from our tests of labor costs and participant support costs. However, without written policy and procedures, established controls, policies and procedures may not be clearly and effectively communicated to and followed by all levels of employees, particularly when there is employee or management turnover.

NEESinc, in its response to the draft report dated February 24, 2010, disagreed with the three findings and stated that, while there are areas of improvement in its subaward monitoring system, many of the prior recommendations made by NSF were mostly implemented or being implemented. NEESinc also stated that it believes it has sufficient compensating controls in place to overcome the deficiencies identified in this report, which is further evidenced in that no questioned costs were identified. NEESinc's response is included in its entirety in Appendix A.

We believe that NEESinc's internal control over subaward monitoring is a material weakness in that those costs represent 86% of the costs claimed by NEESinc and that NEESinc's controls over subawardees were not effective or fully implemented. We also agree that the processes that NEESinc verbally described over management review, employee timekeeping, labor cost allocations and participant support costs appear adequate, but they were not always evidenced in writing or incorporated in written policies and procedures, as required in NEESinc's federal award conditions.

Since NEESinc will be dissolved and will not be directed to correct the compliance and internal control deficiencies identified from our audit, we do not make any recommendations to NEESinc for the findings identified. However, we believe the same deficiencies, if existing at the entity to be managing the NEES Project or at any newly established NSF awardee, could adversely affect NSF awards in the future. Therefore, we made several suggestions to NSF (see Appendix C – Other Matters), which we feel would enhance NSF's pre-award process and overall award portfolio management process.

For a complete discussion of audit findings, refer to the Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Schedules Performed in Accordance with *Government Auditing Standards*.

**NEES CONSORTIUM, INC.**

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## INTRODUCTION

## BACKGROUND

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We audited funds awarded by the National Science Foundation (NSF) to NEES Consortium, Inc. (NEESinc) under award number CMMI-0402490 for the period October 1, 2004 to December 31, 2008. The award number CMMI-0402490 was effective from October 1, 2004 through September 30, 2009, with an option to extend the award through 2014. In November 2007, NSF decided not to extend the award with NEESinc. As such, NEESinc would no longer manage after award by September 30, 2009. The original award amount was \$107 million, with 85 million budgeted for the operating costs of 15 subawardees. The final award amount was reduced to \$95 million due to early phase-out of the award. The phase-out period began on January 1, 2008. As of December 31, 2008, award number CMMI-0402490 was the only active NSF award of NEESinc. After the phase-out period, the management and operations of NEES Project will be awarded to another entity and NEESinc will be dissolved.

NEESinc, as a Federal awardee, is required to follow the cost principles specified in Office of Management and Budget (OMB) Circular A-122, *Cost Principles for Non-Profit Organizations*, and the Federal administrative requirements contained in 2 CFR 215 - *Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations* (OMB Circular A-110 has been incorporated into 2 CFR 215).

NEESinc, located in Davis, California, is a nonprofit corporation under Section 501(c)(3) of the Internal Revenue Code. NSF created the Network for Earthquake Engineering Simulation (NEES) Project to give researchers the tools to learn about earthquakes and tsunami impacts on buildings, bridges, utility systems and other critical components of today's society. The project consists of (a) NEESinc headquarters, (b) fifteen shared use, state-of-the-art earthquake engineering experimental research sites (all universities), located across the U.S., and (c) an information technology (IT)/NEESgrid cyberinfrastructure. The mission of the NEES Project is to enable collaboration and transformative research to reduce seismic risk by providing world-class community infrastructure. The NEES Project is managed and operated by NEESinc. NSF awarded the task of setting up the NEESinc to CUREE (The Consortium of Universities for Research in Earthquake Engineering). In January, 2003, NEES Consortium, Inc. was incorporated as a non-profit organization. NEESinc functions as the coordinator of all NEES financial administration and is responsible for operating and coordinating the NEES network's activities at the 15 large-scale experimental sites and collaborating with various organizations and other interested parties working together on a common initiative.

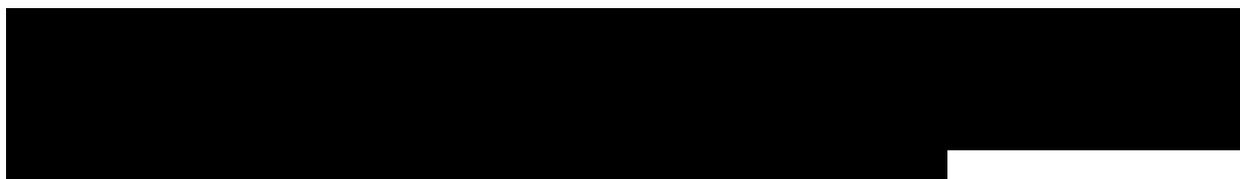
In the first few months of its operations in October, 2004, NEESinc only had one employee who was the Executive Director. From June 2004 to December 2005, NEESinc's Board of Directors appointed a President; developed its own organizational infrastructure; contracted for and constructed its headquarter facilities and construction on those facilities; interviewed other managers; and performed other necessary tasks to start its operations.

According to NEESinc officials, limited guidance was provided by NSF or its Board of Directors to NEESinc concerning how the Federal administrative and cost standards and requirements should be applied to the financial administration of NEESinc at the inception of its operations. Additional guidance was given in March 2005 when NSF performed a Standard Award Monitoring Site Visit at NEESinc and provided various recommendations on its program and fiscal operations. At the time of the NSF monitoring site visit, the NEES managers had been on board less than 3 months and the Finance & Business Operations Manager had been on board

for only one week. On December 27, 2005, NSF notified NEESinc that NEESinc had adequately addressed all of NSF's concerns raised from the March 2005 visit.

In May 2006, NSF performed a Total Business System Review (TBSR) at NEESinc. The TBSR identified a significant number of deficiencies related to NEESinc's business operations, and made approximately eighty-eight recommendations for corrective actions. According to NEESinc, it greatly welcomed the recommendations from the TBSR because the TBSR provided NEESinc with valuable guidance and technical knowledge as to how to conduct the financial operation and apply the administrative standards and requirements to the Federal award. NEESinc responded to the TBSR in March 2007 and indicated that approximately two-thirds of the eighty-eight recommendations had been already implemented and it had initiated actions on nearly all the others.

NSF subsequently performed a programmatic site visit in July 2007 and determined that NEESinc was not making satisfactory programmatic progress in the conduct of NEES operations under the award. NEESinc was advised by NSF to implement a corrective action plan to correct the deficiencies noted in the site visit report. In November 2007, NSF determined that the response from NEESinc did not provide a basis for continued support of the award under the originally planned schedule and funding. As a result of the decision to terminate the award, NEESinc began phased-out of the award during Fiscal Year 2008 and Fiscal Year 2009 with the phase-out period starting on January 1, 2008. The award amount was reduced to \$95 million due to early phase-out of the award. After the phase-out period, the management and operations of NEESinc will be awarded to another entity and NEESinc will be dissolved.



Description of the NSF award we audited is as follows:

**Award CMMI-0402490 – NEES Consortium Operations.** NSF awarded Cooperative Agreement Award No. CMMI-0402490 to NEESinc for the period October 1, 2004 to September 30, 2009 in an original amount of \$106,525,942, which was subsequently reduced to \$94,890,581. NEESinc is responsible for managing, operating and maintaining the national George E. Brown Jr. Network for Earthquake Engineering Simulation (NEES) Project during the award period, which gives researchers the tools to learn about earthquakes and tsunami impacts on buildings, bridges, utility systems and other critical components of today's society. The Project consists of (a) NEESinc headquarters led by an Executive Director/Chief Executive Officer, (b) fifteen shared use, state-of-the-art earthquake engineering experimental research sites (all universities), located across the U.S., and (c) an information technology (IT)/NEESgrid cyberinfrastructure. The equipment sites and cyberinfrastructure provide a user-friendly, collaborative, accessible, and data-rich experimental and analytical infrastructure for research, education, and technology transfer across the earthquake engineering field.

Cumulative disbursements for award number CMMI-0402490 reported to NSF through December 31, 2008 were 

## AUDIT OBJECTIVES, SCOPE AND METHODOLOGY

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The objectives of our audit were to:

1. Determine whether NEESinc's system of internal control over administering its NSF award is adequate to account for and ensure compliance with applicable OMB Circular and NSF award requirements.
2. Identify and report instances of noncompliance with laws, regulations and the provisions of the award agreements and weaknesses in NEESinc's internal controls over compliance and financial reporting that could have a direct and material effect on the Schedule of Award Costs (Schedule A) and NEESinc's ability to properly administer, account for, and manage its NSF award.
3. Determine and report on whether NEESinc adequately monitors its subawards.
4. Follow-up on recommendations identified in NSF's 2005 Standard Award Monitoring Site Visit and 2006 Total Business System Review (TBSR) to determine if they have been satisfactorily addressed and implemented (see results of follow-up in Appendix B);
5. Determine and report on whether the Schedule of Award Costs of NEESinc presents fairly, in all material respects, the costs claimed on the *Federal Financial Report* (FFR) in conformity with Federal and NSF award terms and conditions.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America, the standards applicable to financial audits contained in *Government Auditing Standards* (2007 Revision) issued by the Comptroller General of the United States, and the guidance provided in the *National Science Foundation OIG Audit Guide* (August 2007), as applicable. These standards and the NSF OIG Audit Guide require that we plan and perform the audit to obtain reasonable assurance about whether amounts claimed to NSF as presented in the Schedule of Award Costs (Schedule A) are free of material misstatements. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the Schedule of Award Costs. An audit also includes assessing the accounting principles used and the significant estimates made by NEESinc, as well as evaluating the overall financial schedule presentation. We believe that our audit provides a reasonable basis for our opinion.

**INTERNAL CONTROLS AND COMPLIANCE**



**Mayer Hoffman McCann P.C.**

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**REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL SCHEDULES PERFORMED IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS**

We have audited costs claimed as presented in the Schedule of Award Costs (Schedule A), which summarizes financial reports submitted by NEES Consortium, Inc. (NEESinc) to the National Science Foundation (NSF) for the award and period listed below and have issued our report thereon dated March 1, 2010.

| Award Number   | Award Period        | Audit Period        |
|----------------|---------------------|---------------------|
| CMMI – 0402490 | 10/01/04 – 09/30/09 | 10/01/04 – 12/31/08 |

We conducted our audit of the Schedule of Award Costs as presented in Schedule A in accordance with auditing standards generally accepted in the United States of America, the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States (2007 revision), and the guidance provided in the *National Science Foundation Audit Guide* (August 2007), as applicable.

**INTERNAL CONTROL OVER FINANCIAL REPORTING**

In planning and performing our audit of the Schedule of Award Costs (Schedule A) for the period October 1, 2004 to December 31, 2008, we considered NEESinc’s internal control over financial reporting as a basis for designing our auditing procedures for the purpose of expressing our opinion on the financial schedule, but not for the purpose of expressing an opinion on the effectiveness of NEESinc’s internal control over financial reporting. Accordingly, we do not express an opinion on the effectiveness of NEESinc’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.

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 in a timely basis. A significant deficiency is a control deficiency, or combination of control deficiencies, that adversely affects the entity'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 NEESinc's financial schedule that is more than inconsequential will not be prevented or detected by NEESinc's internal control. We consider the deficiencies described below as Finding Nos. 1 through 3 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 schedules will not be prevented or detected by NEESinc's internal control.

Our consideration of internal control over financial reporting was for the limited purpose described in the first paragraph of this section and would not necessarily identify all deficiencies in the internal control that might be significant deficiencies and, accordingly, would not necessarily disclose all significant deficiencies that are also considered to be material weaknesses. However, we believe that Finding No. 1 as described below is also a material weakness.

## **COMPLIANCE AND OTHER MATTERS**

As part of obtaining reasonable assurance about whether NEESinc's financial schedule is free of material misstatement, we performed tests of NEESinc's compliance with certain provisions of applicable laws, regulations, and NSF award terms and conditions, noncompliance with which could have a direct and material effect on the determination of financial schedule amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests of compliance disclosed three instances of noncompliance that are required to be reported under *Government Auditing Standards* and the *National Science Foundation OIG Audit Guide* and are described in Finding Nos. 1 through 3 below.

NEESinc's response to the findings identified in our audit is described below after each finding and is included in its entirety in Appendix A. We did not audit NEESinc's response and, accordingly, we express no opinion on it.

Since NEESinc will be dissolved and will not be directed to correct the compliance and internal control deficiencies identified from our audit, we do not make any recommendations to NEESinc for the findings identified. However, we believe the same deficiencies, if existing at the entity to be managing the NEES Project or at any newly established NSF awardee, could adversely affect NSF awards in the future. Therefore, we made several suggestions to NSF (see Appendix C – Other Matters), which we feel would enhance NSF's pre-award process and overall award portfolio management process.

## FINDINGS AND RECOMMENDATIONS

### Finding 1. Fiscal Monitoring of Subawardees Could be Improved

Although NEESinc did some monitoring of its subaward costs charged to NSF award number CMMI-0402490, which included nineteen subawards amounting to [REDACTED] of the total costs charged to the NSF award (of which [REDACTED] were equipment costs), the fiscal monitoring process was limited and could be improved to provide greater assurance that the subaward costs claimed are reasonable, allowable and allocable to its NSF award, and that equipment and property purchased with NSF funds are properly tracked and safeguarded. Due to inadequate personnel resources and personnel with a lack of subaward monitoring experience and knowledge, NEESinc to a great extent relies on the controls and self-assessments made by the subawardees to ensure that subaward costs are reasonable, allowable, and allocable to the NSF award, and that equipment purchased by the subawardees under the NSF award is properly tracked and safeguarded. This condition was also noted in the management letter issued by NEESinc's OMB Circular A-133 auditor for the fiscal year ended September 30, 2006, as well as on NSF's March 2005 Monitoring Site Visit Report and May 2006 Total Business System Review (TBSR) of NEESinc. In order to validate the subaward costs claimed and to ensure that equipment purchased by the subawardees under the NSF award is properly tracked and safeguarded, we performed additional audit tests at four of the nineteen subawardees. At one subawardee, we found that the equipment costs per the subawardee's inventory system did not match the equipment costs claimed per the subawardee's general ledger. Although there were no questioned costs as a result of the condition that was subsequently corrected during our audit, additional required routine subaward monitoring could prevent or identify any potential or actual problems or errors in the subawardees' inventory records.

2 CFR 215, Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations (OMB Circular A-110), Subpart C, §215.51(a), states: "Recipients are responsible for managing and monitoring each project, program, subaward, function or activity supported by the award. Recipients shall monitor subawards to ensure subrecipients have met the audit requirements as delineated in §215.26."

Further, OMB Circular A-133, Audits of States, Local Governments, and Non-Profit Organizations, Subpart D, §400(d.3) – Pass-Through Entity Responsibilities, states: "A pass-through entity shall perform the following for the Federal awards it makes:... (3) Monitor the activities of subrecipients as necessary to ensure that Federal awards are used for authorized purposes in compliance with laws, regulations, and the provisions of contracts or grant agreements and that performance goals are achieved." Although OMB Circular A-133 does not specifically state that an awardee is required to implement a risk-based subaward monitoring process, the OMB Circular A-133 Compliance Supplement, Part 3, Section M, requires the auditor to determine whether or not the awardee evaluated its subaward risk to determine the need for closer monitoring.

The NSF Grant Policy Manual, Section 301, also specifies that grantees are responsible for managing and monitoring subaward performance and exercising prudent management of all expenditures and actions affecting the grant.

Specifically, we found that NEESinc did not develop and start implementing a formal subawardee monitoring plan until the beginning of fiscal year 06/07 (October 2006). This condition was also noted on the management letter issued by NEESinc's OMB Circular A-133

auditor for the fiscal year ended September 30, 2006, as well as NSF's March 2005 Monitoring Site Visit Report and the Report on Total Business System Review of NEESinc performed in May 2006. Therefore, there were no formal subaward monitoring policies and procedures implemented from the inception of the award (October 1, 2004) through the end of fiscal year 05-06 (September 30, 2006).

According to NEESinc officials, at the inception of the award from October 2004 through January 2005, fiscal monitoring activities on subawardees were limited to review of monthly invoices for mathematical accuracy and budgetary compliance. A Director of Contracts Administration was hired in February 2005 to handle the financial aspect of all subaward contractual and monitoring matters. From that point of time, subawardee fiscal monitoring activities also included review of subawardees' OMB Circular A-133 Single Audit reports for internal control and compliance findings. On an annual basis, a letter was sent by the Director of Contracts Administration to each subawardee requesting the subawardee to certify if the subawardee had completed an OMB Circular A-133 Single Audit, and if there were any material weaknesses, instances of non-compliance and findings related to the subawards from NEESinc. The Director of Contracts Administration also obtained and reviewed the subawardees' Single Audit reports and audited financial statements, and followed up with the subawardees to ensure that any material weaknesses, instances of non-compliance or findings related to the NEESinc's subawards had been properly and timely resolved. In addition, according to NEESinc officials, the Director of Contracts Administration maintained regular contacts with the subawardees through emails and telephone meetings in order to obtain an understanding of their progress and to provide technical assistance, if needed. However, there was no formal written plan or procedures on subawardee monitoring and no documentation supporting the monitoring activities performed.

During the period May 2005 through January 2006, NEESinc officials stated that they performed site visits at 10 subawardee locations. These site visits were not formal fiscal monitoring evaluations but more of inquiry and supportive nature. The purpose of the site visits was mainly to establish better working relationships with the subawardees. These 10 subawardees were chosen primarily because there were some other events, such as seminars or board meetings, held concurrently at their locations, not because of any results from particular risk assessments or analyses of actual fiscal concerns because no such subaward monitoring work had been performed. There was no formal documentation maintained to document these visits, including the monitoring procedures performed and the results. These visits also did not include any review of supporting documentation of the costs claimed on the subaward invoices. After the initial site visits were performed at these 10 subawardees, no additional site visits were conducted because NEESinc did not have adequate manpower and resources available to perform additional site visits at any of the other subawardees.

NSF conducted a monitoring site visit at NEESinc in March 2005. In its monitoring site visit report, NSF commented that NSF did not fully understand the explanation provided by NEESinc of subawardee responsibilities and how that translated to reimbursement obligations. In addition, NSF was uncertain if the subawardees were accounting for subaward costs correctly. Therefore, NSF recommended that NEESinc develop and implement a written subaward monitoring plan.

NSF also conducted a Total Business System Review (TBSR) at NEESinc in May 2006 and noted that NEESinc was preparing a manual that would detail the monitoring practices that would be adopted by NEESinc. In its TBSR report, NSF recommended that NEESinc develop subaward administration plans for each subaward to document all the planned and performed

subaward monitoring activities. NSF also recommended that NEESinc implement a consortium-wide, integrated work breakdown structure (WBS) that could be used to establish a project baseline, disaggregate subawardee budgets by activity, and measure work accomplished against those budgets. In addition, NSF recommended that NEESinc develop and implement policies and procedures to monitor property compliance of the subawardees.

Based on the recommendations from the NSF monitoring site visit in March 2005 and Total Business System Review in May 2006, NEESinc developed and started implementing a formal subawardee monitoring plan at the beginning of fiscal year 06-07 (October 1, 2006). Under the subaward monitoring plan, subawardee monitoring activities include the following:

- review of subawardees' audited financial statements and Single Audit reports;
- review of monthly subawardee invoices for mathematical accuracy and budgetary compliance;
- Monthly and quarterly phone meetings with subawardees' site managers;
- Annual workshop;
- Review and approval of Quarterly Financial Reports (QFR) and Quarterly Accomplishment Reports (QAR); and
- Self-reporting of equipment.

Under the QFR system, invoices of a subawardee in the first and second months of the quarter are paid immediately after they have been reviewed by NEESinc for mathematical accuracy and budgetary compliance. For the third invoice of the quarter, the subawardee will not be paid until the QFR is received, reviewed and approved by NEESinc. The QFR was developed based on the recommendations from NSF's 2006 TBSR to adopt a Work Breakdown Structure (WBS) approach and to provide a clear linkage between activities and expenditures. Under the WBS approach, reporting of subawardee activities is broken down into different activity levels and financial reporting categories. Each subawardee must file a QFR and a Quarterly Accomplishment Report (QAR) within 45 days after the end of each quarter. The QFR requires the subawardees to report both "estimated" and actual "invoiced" costs for the quarter in order to provide linkage between accomplishments and expenditures. On the QFR, a subawardee must first provide a summary of all costs incurred by cost category under the budget and by project activity. The subawardee is required to report all detail personnel costs, Full-Time Equivalents (FTEs), and other non-payroll related costs claimed. The details of these costs must be aggregated to the total expenditures claimed for the quarter. The subawardee is also required to itemize all equipment, participant support costs and all other costs that are over \$1,000 per item or service. Comparisons of budget and actual amounts by cost category are also required on the QFR.

The QFRs are reviewed by the NEESinc Program Administrator, the Director of Contracts Administration, and the Director of Experimental Site Operations (ESO). The Director of ESO also reviews each QFR in conjunction with the QAR to determine the reasonableness of the levels of expenditures. During the QFR review process, no supporting documentation would be requested from the subawardees to support the amounts reported, unless any unusual items or charges that appears unreasonable are identified.

In addition, NEESinc started tracking the equipment purchased by the subawardees under the NSF award and located at the subawardees in March of 2007. Every two years, an email is sent by the Program Administrator to each subawardee requiring the subawardee to report each piece of equipment or asset purchased with NSF funds on an Institutional Reporting of Equipment Inventory Form.

Although NEESinc developed and started implementing a formal subawardee fiscal monitoring plan based on NSF's recommendations from the 2005 monitoring site visit and 2006 TBSR at the beginning fiscal year 06/07 (October 1, 2006) to improve and strengthen its monitoring activities, NEESinc has not fully implemented the monitoring plan and the recommendations from NSF. According to NEESinc's subawardee monitoring plan, monitoring procedures would include reviewing financial and performance reports submitted by the subawardees, conducting site visits to review financial records, and maintaining regular contacts with subawardees through email and telephone to provide technical assistance. The frequency and intensity of monitoring procedures should be based on a "risk-based" approach. However, no risk assessments or site visits have been conducted in accordance with the monitoring plan on any subawardees so far. Also, NEESinc did not implement NSF's recommendation to develop a subaward administration plan for each subawardee to document the planned and performed monitoring activities.

Apart from the above, monitoring of equipment and property compliance of subawardees to a great extent relied on self-reporting of subawardees. No measures were in place to ensure that physical count of subawardee equipment has ever been conducted and that each piece of equipment is properly identified and tagged. Furthermore, neither the subawardee monitoring plan nor the property policy and procedures of NEESinc addressed equipment nor property located at the subawardee locations. In addition, the reported equipment on the Equipment Inventory Forms completed in 2007 was not agreed or reconciled to the equipment costs claimed by the subawardees. During our fieldwork, NEESinc just completed another subawardee equipment self-reporting for 2009 and was in the process of comparing the reported equipment in 2007 to those reported in 2009, as well as reconciling the reported equipment to the total equipment costs claimed by each subawardee. Total equipment costs claimed by the subawardees were about \$3.43 million by the end of fiscal year 2008.

Because of this internal control deficiency, we performed additional on-site procedures at four subawardees to satisfy ourselves that the subaward costs charged by NEESinc to the NSF grant are accurate, allowable and allocable, and that equipment purchased by the subawardees are properly tracked and safeguarded. These four subawardees included NEESit, University of California – San Diego (UCSD), State University of New York – Buffalo (SUNY) and MTS System. Total amount of subaward costs claimed by NEESinc for these four subawardees as of December 31, 2008 is about \$26 million or 40.53% of total subaward costs claimed. No exceptions or questioned costs were noted during our site visits to UCSD, SUNY and MTS System. The following is a description of the exceptions we noted during our on-site visit to NEESit.

## **NEESit**

### **A. Inaccurate Inventory Record**

NEESit is part of the San Diego Supercomputer Center, which is a division of the University of California – San Diego (The University). NEESit is responsible for building and maintaining the cyberinfrastructure for the NEES project. NEESit tracks all pieces of equipment purchased under the subaward through the University's Equipment Asset Management System (EAMS). During our on-site testing, we reconciled the total amount of equipment costs claimed to NEESinc by NEESit to NEESit's general ledger without revealing any exceptions. However, we noted that NEESit's equipment costs per the University's EAMS did not match the equipment costs per NEESit's general ledger. The amount of total equipment costs per the University's

EAMS was [REDACTED] while NEESit's general ledger reflected the amount as [REDACTED]. Further examination of the variance revealed the following.

- The Fund Manager of NEESit did not close four equipment fabrications as completed in the accounting system. Therefore, the equipment fabrications were not reported as completed equipment by the Fiscal Specialist of NEESit, who is responsible to keep track of all equipment for the department, to the University's Equipment Management Unit, which is responsible for updating the EAMS. As a result, those four equipment fabrications were not recorded as equipment in the University's EAMS, and neither University of California Identification (UCID) numbers nor tags were assigned to the completed fabrications.
- One piece of equipment was purchased from the University's bookstore but the person who purchased the item did not report the item to the Fiscal Specialist and the University's Equipment Management Unit. As a result, the item was not recorded in the University's EAMS, and neither a UCID number nor a tag was assigned to the item.
- The costs for four pieces of equipment were booked at the wrong amounts in EAMS by the University's Equipment Management Unit. As a result, the equipment costs per EAMS did not tie to the costs per the general ledger.
- The University's Equipment Management Unit erroneously recorded an item into the University's EAMS at the purchase order amount, instead of the actual cost on the invoice. In addition, the item was actually various materials and supplies not related to any equipment fabrication, and should not have been recorded into the University's EAMS as equipment.

After we had identified the above exceptions, NEESit immediately informed the University's Equipment Management Unit to correct the errors and update the University's EAMS, so that the equipment costs in the University's EAMS agreed to the total amount of equipment costs claimed. There were no questioned costs involved as a result of the above exceptions that were subsequently corrected during our audit.

NEESinc could have improved its subaward monitoring practices by implementing a risk-based process to assess the risk of noncompliance and of claiming unallowable costs of its subawardees to determine the level of subawardee oversight necessary. The risk level assigned during the risk assessment process should determine the need for performing further steps beyond a review of the OMB Circular A-133 audit report results, such as performing desk reviews and site visits, as well as requesting and sampling supporting documentation to verify charges to NSF awards. The rationale used to monitor each subawardee and the planned monitoring activities should be documented. A formal subawardee monitoring risk assessment process could better prevent or identify unallowable subaward costs claimed on all NSF awards and any misappropriation of equipment and property. In addition, NEESinc's current subawardee monitoring plan does not address specific monitoring steps for equipment located at the subawardee locations. NEESinc's subawardee monitoring plan should include appropriate steps that will be taken to ensure that equipment purchased with NSF funds is properly tracked and safeguarded.

NEESinc's fiscal personnel are aware of the subawardee fiscal monitoring requirements of OMB Circulars A-133 and 2 CFR 215. However, NEESinc is a very young entity and its fiscal

personnel did not have adequate knowledge and experience in subawardee monitoring at the inception of its operation. As a result of the NSF monitoring site visit and TBRs, NEESinc personnel have been working diligently to improve its subawardee monitoring system and activities based on NSF's recommendations. However, due to inadequate personnel resources and manpower, NEESinc was unable to fully and effectively implement its subawardee fiscal monitoring plan and all NSF's recommendations. At the inception of the development of a subaward monitoring process, the Director of Contracts Administration was the only personnel available for subawardee fiscal monitoring. Therefore, NEESinc relied heavily on the single audits and certifications of the subawardees to ensure the accuracy of its expenses and compliance with Federal and NSF provisions. It was not until March 2007 that NEESinc was able to obtain funds from NSF to hire additional personnel (2 full-time employees, including a Program Administrator and a Finance/Human Resources Administrator) to assist in subawardee fiscal monitoring. Nevertheless, after an extremely unfavorable third year which included the NSF site review in July of 2007, NEESinc management refocused the resources to a model more reliant on monitoring through subawardee self-reporting because NEESinc needed to direct the majority of its personnel resources to improve NEES program operations as NSF was considering discontinuation of the award with NEESinc and the future of NEESinc was obviously in jeopardy at that time. In November of 2007, NSF indicated it had no intention of renewing NEESinc's NSF award.

NEESinc's and other NSF awardees' inadequate subawardee fiscal monitoring could lead to NSF funds being used for purposes other than those intended under the NSF award and equipment purchased under the NSF award not adequately accounted for and safeguarded. Thus, inadequate subawardee fiscal monitoring increases the risk that some of the subawardee costs claimed by NEESinc and other NSF awardees may be unallowable, unreasonable or not allocable to the NSF awards and result in the misappropriation of equipment.

### **Awardee's Comments**

NEESinc disagrees with classifying this finding as a material weakness because there were no questioned costs identified from the audit. However, NEESinc explained that it implemented several of the prior NSF recommendations and it agrees that there are areas of improvement that it could make with regards to its subaward fiscal monitoring system. NEESinc stated that it was on its way to improving its monitoring capabilities and would have implemented a more robust subaward monitoring system if it continued managing the project. NEESinc also stated that it did not have the resources to perform physical visits to the subawardees that had equipment purchases but it had other procedures in place for the subawardees to self-report its equipment and NEESinc was in the process of reconciling prior and current property reports that had been received from the subawardees.

### **Auditor's Response**

We do not concur that the subaward monitoring finding is not a material weakness in NEESinc's internal controls. 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 schedules will not be prevented or detected by an entity's internal control. NEESinc's existing internal controls would not be able to detect any unallowable costs claimed or misappropriation of equipment by the subawardees because NEESinc primarily relied on self-reporting and the internal controls of the subawardees to ensure that the subaward costs claimed are reasonable, allowable and allocable to its NSF award, and that equipment and property purchased with NSF funds are properly tracked and safeguarded. Although there were

no questioned costs identified from our audit, it could be attributed to the subawardees' internal controls, but not NEESinc's own internal controls.

Since NEESinc will be dissolved and will not be directed to correct the compliance and internal control deficiencies identified from our audit, we are not making any recommendations to NEESinc for this finding. However, we believe the same deficiencies, if existing at the entity to be managing the NEES Project or at any newly established NSF awardee, could adversely affect NSF awards in the future. Therefore, we made suggestions to NSF concerning this finding (see Appendix C – Other Matters), which we feel would enhance NSF's pre-award process and overall award portfolio management process.

## **Finding 2. Inadequate Control Process for Documenting Management Review**

NEESinc did not have an adequate internal control process for documenting the review and approval of fringe benefit and indirect cost allocations, cash drawdowns, and, Financial Cash Transactions Report/Federal Financial Report (FCTR/FFR) reconciliation and reporting. Even though NEESinc appears to have implemented a process to adequately perform these functions and appears to have properly segregated these duties amongst the Finance/Human Resources Administrator, an outsourced accountant, and the Treasurer of the Finance Committee, based on our review of NEES' financial processes that were verbally explained to us, there is no evidence or documentation of the reviews and approvals being performed by these personnel. This occurred because NEESinc's policies and procedures did not include adequate provisions for documenting the review and approval of these financial functions. We did not find any exceptions or questioned costs from our testing of employee benefits, indirect costs, drawdown and FFR reporting and reconciliations. However, it is important for NSF awardees to establish and implement an adequate internal control process to ensure that proper controls are in place for accurate accountability, management, and reporting of NSF funds. These controls would include providing the required guidance for compliance with Federal requirements at the award date and the necessary personnel resources to ensure a proper segregation of duties, and management and approval process of financial transactions and reports. If adequate internal controls are not established to ensure that the review and approval of fringe benefit and indirect cost allocations, cash drawdowns, and, Federal financial reconciliation and reporting are taking place, NSF funds may not be properly accounted for and reported, and also could be subject to mismanagement.

2 CFR 215, Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations (OMB Circular A-110), Subpart C, §215.21(b), states: "Recipients' financial management systems shall provide for the following ... (2) Records that identify adequately the source and application of funds for federally-sponsored activities. These records shall contain information pertaining to Federal awards, authorizations, obligations, unobligated balances, assets, outlays, income and interest."

NEESinc officials stated that NEESinc's Controller/Chief Financial Officer is responsible for performing the fringe benefit and indirect cost allocations, drawdowns, as well as FCTR/FFR reconciliation and reporting. The allocations, drawdowns, FCTR/FFR reconciliations and reports are then reviewed by the Finance/Human Resources Administrator and an outsourced accountant. The reviewed reconciliations and reports are included in the quarterly financial reporting package that is forwarded to the Treasurer of the Finance Committee for review. The Treasurer of the Finance Committee reviews and approves the quarterly financial package and presents this information to the Board of Directors on a quarterly basis.

Even though NEESinc appears to have an adequate financial reporting process, its written policies and procedures did not include adequate provisions for documenting the review and approval of these necessary financial functions. In fact, its written policies and procedures only require that these financial transactions and reports be reviewed by Finance/Human Resources Administrator and an outsourced accountant. Therefore, the Finance/Human Resources Administrator, the outsourced accountant, and the Treasurer were not required to and did not initial and date the financial documents to evidence their reviews and approval of the financial transactions and reports. Written policies and procedures for proper financial accountability and reporting should include provisions for documenting the review and approval of all financial related activities and reporting related to NSF funds as well as other Federal funds.

According to NEESinc's officials, due to inadequate personnel resources authorized by NSF, NEESinc was unable to establish a hierarchy sufficient to allow different levels of review and authorization, and to independently perform these necessary financial functions. The outsourced accountant and the Finance/Human Resource Administrator are below the Controller; therefore, the purpose of the reviews performed by the Finance/Human Resources Administrator, the outsourced accountant and the Treasurer of the Finance Committee are more of an administrative and peer review nature, instead of authoritative, to help ensure that information concerning those transactions is accurate, properly prepared, and achieving a certain degree of segregation of duties. As such, those reviews were not documented by the reviewers.

We did not find any exceptions or questioned costs from our tests of employee benefits, indirect costs, drawdown and FFR reporting in that the costs claimed appeared allowable, allocable, reasonable and in support of the NSF project. However, without adequate internal control, NSF funds may not be properly accounted for and reported, and maybe be subject to mismanagement. Adequate personnel resources should be allocated to properly administer Federal funds to ensure that controls are in place for proper segregation of required financial duties and functions. These controls are necessary to provide assurance that financial transactions and reports are properly reviewed and approved, and provide correctly reported costs to NSF.

### **Awardee's Comments**

NEESinc disagrees with the finding and stated that it has met the requirement of 2 CFR 215, Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations (OMB Circular A-110), Subpart C, §215.21(b). NEESinc stated that it believes it has sufficient compensating controls in place. NEESinc also stated that there was no reference in the report to explain its NSF indirect cost rate agreements.

### **Auditor's Response**

We do not concur that NEESinc has met the requirement of 2 CFR 215, Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations (OMB Circular A-110), Subpart C, §215.21(b) because no authorizations of the significant processes mentioned above were documented. The financial processes described above were verbally explained to us. Since there was no evidence of reviews and approvals, we were not able to evidence that such reviews and approvals of the financial processes had actually occurred and proper segregation of duties did exist. However, we agree that NEESinc's practices, as they were verbally described to us, were adequate but should have been evidenced by dates and signatures or initials of the approving and reviewing

officials on supporting documentation and the practices should have been documented in writing in NEESinc's policies and procedures, in order to be fully compliant with the OMB requirements.

The report also identifies in Note 2 of the *Notes to the Financial Schedule* the arrangement between NSF and NEESinc concerning indirect cost rate agreements and found no exceptions.

Since NEESinc will be dissolved and will not be directed to correct the compliance and internal control deficiencies identified from our audit, we are not making any recommendations to NEESinc for this finding. However, we believe the same deficiencies, if existing at the entity to be managing the NEES Project or at any newly established NSF awardee, could adversely affect NSF awards in the future. Therefore, we made suggestions to NSF concerning this finding (see Appendix C – Other Matters), which we feel would enhance NSF's pre-award process and overall award portfolio management process.

### **Finding 3. Lack of Written Policies and Procedures on Employee Timekeeping, Labor Cost Allocations and Participant Support Costs**

NEESinc did not have written policies and procedures on employee timekeeping and labor cost distributions, as well as participant support costs. Although NEESinc, according to its verbal explanations and our observations, has established and implemented processes to account for and properly report employee timekeeping, labor cost distributions and participant support costs, these processes were not documented into written policies and procedures to better ensure effective internal controls over the processes. This finding was also identified on NSF's March 2005 monitoring site visit report and the May 2006 Total Business System Review report on NEESinc performed by NSF officials. NEESinc officials stated that this occurred because NEESinc did not have adequate personnel resources available in-house to include all established control activities and practices into written policies and procedures. We did not find any exceptions or questioned costs from our tests of participant support costs, as well as employee timekeeping and labor cost allocations. However, without written policy and procedures, established controls, policies and procedures may not be clearly and effectively communicated to and followed by all levels of employees, particularly when there is employee or management turnover.

2 CFR 215, Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations (OMB Circular A-110), Subpart C, §215.21(b), states: "Recipients' financial management systems shall provide for the following ... (6) Written procedures for determining the reasonableness, allocability and allowability of costs in accordance with the provisions of the applicable Federal cost principles and the terms and conditions of the award."

We found that NEESinc has developed and implemented adequate processes and practices to account for and report on employee timekeeping, labor cost distributions and participant support costs. However, the processes and practices were not developed into written policies and procedures thereby establishing internal controls over these processes and practices followed by NEESinc to properly account for and report these financial transactions. The process in place for employee timekeeping and labor cost distribution requires that each employee records all his/her time worked and leave taken within a pay period on an electronic timesheet. The employee must separate his/her work time based on the hours spent on each of the NEESinc's projects for labor cost distribution purposes. The employee's supervisor will then review the

electronic timesheet for accuracy and approval in the electronic timekeeping system. However, this process is not detailed in NEESinc's existing written policies and procedures. NEESinc only has a briefly written payroll policy stating that employees must submit approved time reports but the policy does not explain the methodology that should be used to complete the time reports to comply with OMB Circular A-122.

At the Total Business System Review (TBSR) of NEESinc in May 2006, NSF determined that NEESinc's salaries and wages expenses were only recorded as direct expenses in the main cooperative agreement's project cost ledger, and employee time efforts for other NSF grants, administration, and paid time off were not separately allocated. Therefore, NSF recommended that NEESinc revise its timekeeping policies and procedures to comply with the OMB Circular A-122 - Cost Principles for Non-Profit Organizations. Following NSF's recommendation, NEESinc started implementing a new employee timekeeping system at the beginning of October 2006. However, during the term of our audit, the new employee timekeeping system, processes and practices have not been included in the written policies and procedures.

In addition, NEESinc did not have written policy and procedures on participant support costs. According to NEESinc officials, since all participant support costs claimed were travel related, NEESinc applies the same written policies and procedures for travel expenses to participant support costs. We reviewed the cost ledgers for participant support costs and tested a sample of participant support costs claimed, and verified that all participant support costs claimed were travel related. Also, NEESinc categorizes a travel expense as participant support cost only when an individual (non-employee) incurs travel costs to attend a NEESinc hosted workshop, seminar or event. If the host of an activity or event is not NEESinc, the travel cost incurred by the individual is categorized as regular travel costs. At the March 2005 monitoring site visit, NSF determined that NEESinc did not have a formal policy on participant support costs. As a result, NSF recommended that NEESinc develop participant support policy and procedures to exclude indirect costs on participant support costs. However, the recommendation has not been implemented by NEESinc.

NEESinc advised that it did not have adequate personnel resources available in-house to develop and implement effective internal control practices where written policies and procedures related to employee timekeeping, labor cost distributions, and participant support costs could be included as part of its internal control structure. NEESinc also felt that since it is a very new NSF awardee and young entity, it was in the process of learning and improving its financial management system. In the past years, NSF performed different site visits and reviews at NEESinc, and provided numerous recommendations to NEESinc to improve its financial management system. NEESinc has been working diligently to follow and implement those NSF recommendations. However, at the same time, since NEESinc did not have adequate resources authorized by NSF, NEESinc was unable to fully implement all NSF recommendations and the majority of its resources and efforts had been placed in the recommendations of higher priority.

We did not find any exceptions or questioned costs from our tests of participant support costs, as well as employee timekeeping and labor cost allocation. However, it is important to have the necessary personnel resources in place to establish and implement effective written policies and procedures for all Federal award processes and practices. This is needed to establish an effective system of internal controls to ensure that proper controls are in place for accurate accountability, management, and reporting of NSF funds. This is particularly important where, without written policies and procedures, established controls may not be clearly and effectively communicated to and complied with by personnel responsible for the approval and reporting

functions, particularly when there is employee or management turnover. If established controls are not written, implemented and functioning as intended, NSF funds may not be properly accounted for and reported, and also maybe subject to mismanagement.

### **Awardee's Comments**

NEESinc disagrees with the finding because NEESinc does not believe that the finding is applicable to 2 CFR 215, Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations (OMB Circular A-110), Subpart C, §215.21(b) (6). NEESinc stated that it believes it has sufficient compensating controls in place because there were no exceptions or questioned costs identified from the audit.

### **Auditor's Response**

Although there were no exceptions or questioned costs identified from our audit, we do not concur that 2 CFR 215, Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations (OMB Circular A-110), Subpart C, §215.21(b) (6) does not apply. The Administrative Requirements clearly requires that recipients of Federal funds must have written procedures for determining the reasonableness, allocability and allowability of costs in accordance with the provisions of the applicable Federal cost principles and the terms and conditions of the award. In addition, information and communication is one of the key components of an entity's internal control system. Without written policies and procedures, established controls may not be clearly and effectively communicated to and complied with by personnel responsible for the approval and reporting functions, particularly when there is employee or management turnover.

Since NEESinc will be dissolved and will not be directed to correct the compliance and internal control deficiencies identified from our audit, we are not making any recommendations to NEESinc for this finding. However, we believe the same deficiencies, if existing at the entity to be managing the NEES Project or at any newly established NSF awardee, could adversely affect NSF awards in the future. Therefore, we made suggestions to NSF concerning this finding (see Appendix C – Other Matters), which we feel would enhance NSF's pre-award process and overall award portfolio management process.

This report is intended solely for the information and use of NEESinc's management, the National Science Foundation, the Office of Management and Budget, and the Congress of the United States and is not intended to be, and should not be used by anyone other than these specified parties.

*Mayer Hoffman McCann P.C.*

Mayer Hoffman McCann P.C.  
Conrad Government Services Division  
Irvine, California  
March 1, 2010

**FINANCIAL SCHEDULES AND  
SUPPLEMENTAL INFORMATION**



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**INDEPENDENT AUDITORS' REPORT ON FINANCIAL SCHEDULE**

We have audited the costs claimed by NEES Consortium, Inc. (NEESinc) to the National Science Foundation (NSF) on the Federal Financial Reports (FFRs) for the NSF award listed below. The FFRs, as presented in the Schedule of Award Costs (Schedule A), are the responsibility of NEESinc's management. Our responsibility is to express an opinion on the Schedule of Award Costs (Schedule A) based on our audit.

| Award Number | Award Period        | Audit Period        |
|--------------|---------------------|---------------------|
| CMMI-0402490 | 10/01/04 – 09/30/09 | 10/01/04 – 12/31/08 |

We conducted our audit in accordance with auditing standards generally accepted in the United States of America, the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States (2007 revision), and the guidance provided in the *National Science Foundation OIG Audit Guide* (August 2007), as applicable. These standards and the *National Science Foundation OIG Audit Guide*, require that we plan and perform the audit to obtain reasonable assurance that the amounts claimed to NSF as presented in the Schedule of Award Costs (Schedule A) are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the Schedule of Award Costs (Schedule A). An audit also includes assessing the accounting principles used and the significant estimates made by NEESinc's management, as well as evaluating the overall financial schedule presentation. We believe our audit provides a reasonable basis for our opinion.

In our opinion, the Schedule of Award Costs (Schedule A) referred to above presents fairly, in all material respects, the costs claimed on the FFRs for the period October 1, 2004 to December 31, 2008 in conformity with the provisions of the *National Science Foundation OIG Audit Guide*, *NSF Grant Policy Manual*, terms and conditions of the NSF award and on the basis of accounting described in the Notes to the Financial Schedule, which is a comprehensive basis of accounting other than generally accepted accounting principles. These schedules are not

intended to be a complete presentation of financial position of NEESinc in conformity with accounting principles generally accepted in the United States of America.

In accordance with *Government Auditing Standards*, and guidance provided in the *National Science Foundation OIG Audit Guide*, we have also issued a report dated March 1, 2010, on our consideration of NEESinc's internal control over financial reporting and our tests of NEESinc's compliance with certain provisions of laws, regulations, and NSF award terms and conditions and other matters. The purpose of that report is to describe the scope of our testing over internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* and should be read in conjunction with this report in considering the results of our audit.

Mayer Hoffman McCann P.C.

Mayer Hoffman McCann P.C.  
Conrad Government Services Division  
Irvine, California  
March 1, 2010

**SCHEDULE A**

**NEES CONSORTIUM, INC.**  
 National Science Foundation Award Number CMMI-0402490  
 Schedule of Award Costs  
 October 1, 2004 to December 31, 2008  
 Interim

| <u>Cost Category</u>  | <u>Approved Budget</u> | <u>Claimed Costs (A)</u> | <u>Reclassification of Costs</u> | <u>Claimed Costs After Reclassification</u> | <u>Questioned Costs</u> | <u>Schedule Reference</u> |
|-----------------------|------------------------|--------------------------|----------------------------------|---|-------------------------|---------------------------|
| Direct costs:         |                        |                          |                                  |   |                         |                           |
| Salaries and wages    | \$ [REDACTED]          | [REDACTED]               | -                                | [REDACTED]                                  | -                       |                           |
| Fringe benefits       | [REDACTED]             | [REDACTED]               | -                                | [REDACTED]                                  | -                       |                           |
| Equipment             | [REDACTED]             | [REDACTED]               | -                                | [REDACTED]                                  | -                       |                           |
| Travel                | [REDACTED]             | [REDACTED]               | -                                | [REDACTED]                                  | -                       |                           |
| Participant support   | [REDACTED]             | [REDACTED]               | -                                | [REDACTED]                                  | -                       |                           |
| Other direct costs:   |                        |                          |                                  |   |                         |                           |
| Material and supplies | [REDACTED]             | [REDACTED]               | -                                | [REDACTED]                                  | -                       |                           |
| Publication costs     | [REDACTED]             | [REDACTED]               | -                                | [REDACTED]                                  | -                       |                           |
| Consultant services   | [REDACTED]             | [REDACTED]               | -                                | [REDACTED]                                  | -                       |                           |
| Computer services     | [REDACTED]             | [REDACTED]               | -                                | [REDACTED]                                  | -                       |                           |
| Subawards             | [REDACTED]             | [REDACTED]               | -                                | [REDACTED]                                  | -                       |                           |
| Other direct costs    | [REDACTED]             | [REDACTED]               | -                                | [REDACTED]                                  | -                       |                           |
| Total direct costs    | [REDACTED]             | [REDACTED]               | -                                | [REDACTED]                                  | -                       |                           |
| Indirect costs        | [REDACTED]             | [REDACTED]               | -                                | [REDACTED]                                  | -                       |                           |
| Total                 | \$ [REDACTED]          | [REDACTED]               | -                                | [REDACTED]                                  | -                       |                           |

**(A)** - The total claimed costs agrees with the total expenditures reported by NEES Consortium, Inc. on the Federal Financial Report as of the quarter ended December 31, 2008. Claimed costs reported above are based on the cost ledgers prepared by NEES Consortium, Inc. from NEES Consortium, Inc.'s books of accounts.

See accompanying *Notes to Financial Schedule*

**SCHEDULE B**

**NEES CONSORTIUM, INC.**  
 Summary Schedule of Award Audited and Audit Results  
 From October 1, 2004 to December 31, 2008

**Summary of Cooperative Agreement Audited**

| <u>Cooperative Agreement Number</u> | <u>Award Period</u> | <u>Audit Period</u> |
|-------------------------------------|---------------------|---------------------|
| CMMI-0402490                        | 10/01/04 – 09/30/09 | 10/01/04 – 12/31/08 |

| <u>Award Number</u> | <u>Type of Award</u>  | <u>Award Description</u>   |
|---------------------|-----------------------|--|
| CMMI-0402490        | Cooperative Agreement | This award is a five-year project for NEESinc to manage and operate Network for Earthquake Engineering Simulation (NEES). NEESinc functions as the coordinator of all NEES financial administration and is responsible for operating and coordinating the NEES network's activities at the large-scale experimental sites and collaborating with various organizations and other interest parties. |

**Summary of Questioned and Unsupported Costs**

| <u>Award Number</u> | <u>Award Budget</u>  | <u>Claimed Costs</u> | <u>Questioned Costs</u> | <u>Unsupported Costs</u> |
|---------------------|----------------------|----------------------|-------------------------|--------------------------|
| CMMI-0402490        | \$ 94,890,581        |                      | -                       | -                        |
| <b>Total</b>        | <b>\$ 94,890,581</b> |                      | -                       | -                        |

**SCHEDULE B**

**NEES CONSORTIUM, INC.**  
 Summary Schedule of Award Audited and Audit Results  
 From October 1, 2004 to December 31, 2008

(Continued)

**Summary of Non-Compliance and Internal Control Findings**

| <u>Findings</u>   | <u>Non-Compliance and/or Internal Control</u> | <u>Significant Deficiency</u> | <u>Material Weakness</u> | <u>Amount of Questioned Costs Affected</u> | <u>Amount of Claimed/ Incurred Costs Affected</u> |
|---|---|-------------------------------|--------------------------|--|---|
| Fiscal Monitoring of Subawardees Could be Improved  | Non-Compliance and Internal Control           | Yes                           | Yes                      | \$ -                                       | \$ [REDACTED]                                     |
| Inadequate Control Process for Documenting Management Review  | Non-Compliance and Internal Control           | Yes                           | No                       | -  | \$ [REDACTED]                                     |
| Lack of Written Policies and Procedures on Employee Timekeeping and Labor Cost Allocations, and Participant Support Costs | Non-Compliance and Internal Control           | Yes                           | No                       | -  | [REDACTED]  |

**NEES CONSORTIUM, INC.**  
Notes to Financial Schedule

From October 1, 2004 to December 31, 2008

**Note 1: Summary of Significant Accounting Policies**

Accounting Basis

The accompanying financial schedules have been prepared in conformity with National Science Foundation (NSF) instructions, which are based on a comprehensive basis of accounting other than generally accepted accounting principles. Schedule A has been prepared by NEESinc from the Federal Financial Reports (FFRs) submitted to NSF and NEESinc's accounting records. The basis of accounting utilized in preparation of these reports differs from generally accepted accounting principles. The following information summarizes these differences:

A. Equity

Under the terms of the award, all funds not expended according to the award agreement and budgeted at the end of the award period are to be returned to NSF. Therefore, the awardee does not maintain any equity in the award and any excess cash received from NSF over final expenditures is due back to NSF.

B. Inventory

Minor materials and supplies are charged to expense during the period of purchase. As a result, no inventory is recognized for these items in the financial schedules.

C. Equipment

Equipment is charged to expense in the period during which it is purchased instead of being recognized as an asset and depreciated over its useful life. As a result, the expenses reflected in the Schedule of Award Costs include the cost of equipment purchased during the period rather than a provision for depreciation.

Except for awards with nonstandard terms and conditions, title to equipment under NSF awards vests in the recipient, for use in the project or program for which it was acquired, as long as it is needed. The recipient may not encumber the property without approval of the federal awarding agency, but may use the equipment for its other federally sponsored activities, when it is no longer needed for the original project.

Equipment purchased with NSF funds is expensed at cost. Accounting principles generally accepted in the United States of America require that equipment to be capitalized and depreciated over its useful life.

**NEES CONSORTIUM, INC.**  
Notes to Financial Schedule

(Continued)

**Note 1: Summary of Significant Accounting Policies (Continued)**

Income Taxes

NEESinc is a nonpr ofit co rporation under S ection 501( c ) ( 3 ) o f t he U.S. Internal Revenue Code and has received rulings from the Internal Revenue Service and the California Franchise Tax Board granting it exemption from income taxes.

The departure from generally accepted accounting principles allows NSF to properly monitor and track actual expenditures incurred by NEESinc. The departure does not constitute a material weakness in internal controls.

**Note 2: Indirect Cost Rates**

| <u>Award Number</u> | <u>Indirect<br/>Cost Rate<br/>For 10/01/06 –<br/>09/30/07*</u> | <u>Base</u> |
|---------------------|--|-------------|
| CMMI-0402490        | [REDACTED]   | [REDACTED]  |

• [REDACTED]

**APPENDIX A – AWARDEE’S COMMENTS TO  
REPORT**



# NEES Consortium, Inc.

George E. Brown, Jr. Network for Earthquake Engineering Simulation

February 24, 2010

██████████ Manager  
Mayer Hoffman McCann P.C.  
2301 Dupont Drive, Suite 200  
Irvine, CA 92612

Dear ██████████

"We determined that the costs claimed by NEESinc and its subawardees under NSF award number ██████████ appear fairly stated and are allowable, allocable and reasonable for the NSF award. In addition, the majority of the recommendations made in NSF's prior review had been addressed."

" We did not find any exceptions or questioned costs..."

NEESinc management believes that the above quotes represent the fundamental nature of the report and are the most important items which should be highlighted. NEESinc, as a new nonprofit entity, was established from the ground up to manage, operate, and maintain the Network for Earthquake Engineering Simulation. As a new start-up entity NEESinc, had to establish a nonprofit corporation, develop bylaws, form a governance structure including a Board of Directors and external advisory committees, hire an Executive Director and staff, acquire and set up headquarters office facilities, and develop all policies and procedures required for operations. This took place after the Cooperative Agreement had already begun and deliverables were expected from NSF. For an audit of this magnitude and length of time to only have "three compliance and internal control deficiencies", we are extremely satisfied that NEESinc employees performed to the best of their abilities given the expectations set by NSF.

It is NEESinc management's belief that this report was undertaken and written with the goal of determining why NSF decided not to renew the cooperative agreement with NEESinc and recompute the next five years of operations. NSF's decision was entirely programmatically based, as all annual site visits and this report show. The contractual and financial aspects of the nonprofit corporation were not the downfall of NEESinc.

NEESinc management would like to point out that some portions of this report do not accurately reflect the history and background of the corporation. Specific examples include:

- NEESinc's Board of Directors never "hired" a President
- As of December 31, 2008, NEESinc also managed the Research Experience for Undergraduates, Grant ██████████
- The reference throughout the report to the 2005 "Site Visit" is misleading, what the report should be referencing is the 2005 "Monitoring Visit." NSF performed programmatic "Site Visits" in 2005 and 2006 that are never mentioned in this report.



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These examples are representative of the misleading tone of this report. The report as it is currently written does not properly reflect the tremendous effort by the Board of Directors, employees of NEESinc, as well as an entire community of earthquake engineering professionals. The report did not address the enormous levels of activity, the learning curves involved given the nature of the situation, and the lack of support and input from NSF on key issues.

We believe it is important to note that the structure and writing style of this report was significantly changed from what was presented at the exit interview. These changes, we believe, lend the report to sound overly negative and exaggerate minor issues.

#### Finding 1

While there are areas of improvement that NEESinc could make with regards to Subaward Monitoring we disagree with this finding as a material weakness. As this finding states there were "no questioned costs." The nature of the procedures and extent of Sub award monitoring is very subjective. As shown in Appendix B, NEESinc implemented the vast majority of all NSF recommendations, and was well on its way to improving monitoring capabilities. Management is confident that if NEESinc continued to operate, a more robust subaward monitoring system would have been implemented.

With respect to the equipment inventory and purchasing of NEESinc's Subawardees, safeguards were actually put into place. NEESinc staff did not physically visit each of the 16 Subawards that actually had equipment purchases on their invoices and compare tag numbers, as this would have taken one dedicated FTE to perform only this task and spend the majority of their time traveling. A staff addition for this kind of assignment would not have been authorized by NSF. NEESinc simply did not have the resources to do this. Instead, Equipment Inventory sheets were sent to each Subaward Institution's Property Management Division after the 2006 TBSR visit. When the institutions reported on their equipment, the reports were filed, and two years later as required by OMB circulars, another inventory was requested. These reports were then compared to the first reports (submitted in 2006) and to all equipment reported by the Subawardees on their Quarterly Financial Reports. A reconciliation of all years was in process at the time the Inspector General Auditors were visiting NEESinc.

#### Finding 2

We disagree with the finding and do not see how criteria of 2 CFR 215 Subpart C Section .21b was not met. Per the Committee of Sponsoring Organizations (COSO) Report an Internal Control is "... a process, effected by an entity's board of directors, management and other personnel, designed to provide reasonable assurance regarding the achievement of objectives..." NEESinc believes there were sufficient compensating controls in place, as described in this report. We believe this is proven through the conclusion that there were no exceptions or questioned costs.

There is no reference in this finding to the fact that NEESinc was only on an Indirect Cost rate for one year of the five-year cooperative agreement. NEESinc had full authorization to direct charge all expenditures to the Cooperative agreement in four out of the five years of operation. This is important to note as it is an example of the startup nature of NEESinc as an entity and that processes were being put in place for the first time. Further, many of the required processes were modified on a frequent basis due to organizational structure and staff changes within the entity.

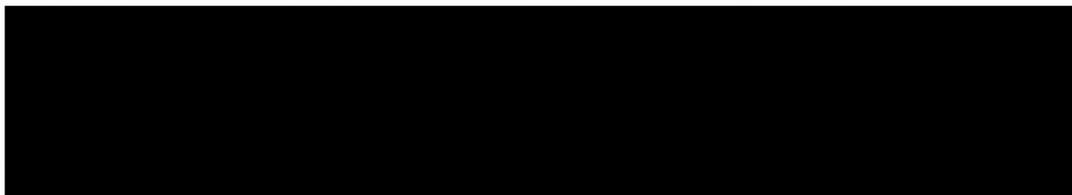


### Finding 3

We disagree with Finding 3 as it is not applicable to 2 CFR 215 Subpart C Section .21b (6). NEESinc believes there were sufficient compensating controls in place which are described in this report. This is proven through the conclusion that there were no exceptions or questioned costs. NEESinc does have reference to employees keeping proper time records in the Employee manual.

The continued reference to the 2005 Site Visit and 2006 TBSR are misleading. These "reviews" by NSF were just that, *reviews*, they were not official audits. What was included in those reports were "recommendations." While the vast majority of the recommendations were implemented, NEESinc staff did not implement all changes as recommended since they did not apply to our business model, and management believes sufficient compensation controls were in place to prevent and detect any errors. One example of this is the TBSR reference to separately allocate paid time off; this was a recommendation of the team, not a requirement. The NEESinc methodology for allocation of paid time off is an acceptable accounting practice. Another example is the reference to the 2005 March Site Visit. The report from that monitoring visit never had a mention of timekeeping.

The fact remains that not a single transaction was found to be unallowable, unreasonable, or not allocable in the course of managing [REDACTED] awarded by NSF to NEESinc for the period of the audit. While the Cooperative Agreement was not renewed by NSF, the financial and contractual operations at NEESinc were very successful as indicated by this audit. The writing of the report clearly is nuanced to imply something in the financial and business operations was a root cause of the ultimate failure of NEESinc. As said earlier, the failure of NEESinc was a well-documented programmatic failure that encompassed all aspects of the research and educational program.



**APPENDIX B – STATUS OF PRIOR REVIEW  
FINDINGS**

## STATUS OF PRIOR REVIEW FINDINGS

---

The NSF reports on its monitoring site visit in March 2005 and on its Total Business System Review of NEESinc in May 2006 identified numerous deficiencies and recommendations in various programmatic, operational, fiscal and administrative areas. We reviewed those findings and recommendations relevant to our audit and found that majority of them had been addressed by NEESinc. The status of those deficiencies and recommendations are as follows.

### A. Report on Monitoring Site Visit in March 2005

1. NSF recommended that NEESinc develop and implement a written subaward monitoring plan that includes: (1) a clear description of allowable costs that can be charged by the subawardees, (2) verification and documentation of how subawardees will account for actual expenses, (3) verification procedures for approving vouchers prior to payments, and (4) on site verification and audit of subaward expenses.  
Status: Unresolved. NEESinc developed a written subaward monitoring plan in fiscal year 06/07. However, the plan was not fully implemented. See details at Finding No. 1.
2. NSF recommended that NEESinc develop participant support policy to include sign-in and sign-out sheet, per diem policy, and policy to exclude indirect costs on participant support costs.  
Status: Unresolved. We noted that, although NEESinc has proper practices to distinguish participant support costs and excluding participant support costs from the calculation of indirect costs, no formal written policy and procedures on participant support costs have been developed. See details at Finding No. 3.
3. NSF determined that NEESinc's accounting system does not provide any internal controls for consistency or logic in the input of data. The accounting system also does not provide for hard closes of fiscal years. NSF recommended that NEESinc consider upgrading its accounting software.  
Status: Unresolved. According to NEESinc, NEESinc originally planned to purchase new accounting software when it received another 5-year extension of the NSF award. However, since NSF decided to end the award with NEESinc, the plan was cancelled.
4. NSF recommended that NEESinc make changes to its chart of accounts to: (1) account for unallowable costs separately; (2) record annual meeting expenses to the grant, and (3) record fringe benefits into natural accounts.  
Status: Resolved. We reviewed NEESinc's chart of accounts and noted that separate account string has been set up for unallowable expenses. NEESinc has also set up separate accounts to record annual meeting expenses related to the grant. In addition, fringe benefits have been recorded into natural accounts.

**STATUS OF PRIOR REVIEW FINDINGS**

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5. NSF recommended that NEESinc develop procedures to reconcile Federal Cash Transaction Reports (FCTRs) to the cost ledgers and to minimize the time between the receipts of funds and disbursement.  
Status: Resolved. We noted that NEESinc has been reconciling FCTRs to the detail cost ledgers on a quarterly basis since the quarter ended June 30, 2006. Also, NEESinc has developed a written drawdown policy and it is NEESinc's general practice to perform drawdowns based on a reimbursement or as-needed basis.
6. NSF recommended that NEESinc has an indirect cost rate methodology in place in fiscal year 06/07 because NEESinc charged all administrative costs directly to the award.  
Status: Resolved. NEESinc submitted an indirect cost proposal for fiscal year 06/07 and received approval from NSF for the proposed indirect cost rate. NEESinc applied the approved rate in fiscal year 06/07.

**B. Report on Total Business System Review in May 2006**

1. NSF recommended that NEESinc develop a subaward administration plan for each subaward to document all the planned and performed subaward monitoring activities.  
Status: Unresolved. No such plans have been developed by NEESinc. See details at Finding No. 1.
2. NEESinc has neither developed nor implemented policies or procedures to monitor property compliance at the 15 equipment sites. A visit to the University of California, Davis geotechnical centrifuge site was not sufficient to determine if all required property controls and safeguards were being followed. NSF observed not only ease of access to capitalized equipment in unsecured areas but also new capitalized equipment without required inventory control tags. NSF recommended that NEESinc develop and implement policies and procedures to monitor property compliance of the subawardee.  
Status: Unresolved. No such policies and procedures have been developed and implemented by NEESinc. See details at Finding No. 1.

**STATUS OF PRIOR REVIEW FINDINGS**

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**B. Report on Total Business System Review in May 2006 (Continued)**

3. NSF determined that the recorded salaries and wages expense, which includes paid absences, appeared only as direct expenses in the main cooperative agreement's project cost ledger. Effort for other NSF grants, administration, and paid time off are not separately allocated. NSF determined that NEESinc should immediately begin tracking salaries and wages through its time and effort reports to individual cost objectives. NSF recommended that NEESinc revise its timekeeping policy and procedures to comply with OMB Circular A-122 – Cost Principles for Non-Profit Organizations to track employee time efforts and allocate labor costs.  
Status: Partially resolved. We noted that NEESinc started implementing a new employee timekeeping system at the beginning of fiscal year 06/07 to comply with OMB Circular A-122. However, the practice has not been included in the written timekeeping policy and procedures. See details at Finding No.3.
4. NSF recommended that NEESinc implement a consortium-wide, integrated work breakdown structure (WBS) that could be used to establish a project baseline, disaggregate subawardee budgets by activity, and measure work accomplished against those budgets.  
Status: Resolved. NEESinc started implementing the recommended WBS in fiscal year 06/07 through the use of subawardee Quarterly Financial Reports and Quarterly Accomplishment Reports.
5. During a prior NSF review conducted March 2005, NEESinc was directed to develop an indirect rate methodology and to implement that methodology effective October 1, 2005. However, NEESinc continued to charge all administrative expenses directly to the main cooperative agreement. NSF recommended that NEESinc implement an indirect rate methodology which is approved by NSF with an effective date retroactive to October 1, 2006.  
Status: Resolved. NEESinc submitted an indirect cost proposal for fiscal year 06/07 and received approval from NSF for the proposed indirect cost rate. NEESinc applied the approved rate in fiscal year 06/07.
6. NSF recommended that NEESinc start charging direct costs and indirect costs related to another NSF award directly to that NSF award in fiscal year 06/07.  
Status: Resolved. We noted that NEESinc started charging direct costs directly to that particular NSF award in fiscal year 06/07. NEESinc also charged indirect costs to that NSF award based on the approved indirect cost rate in the same fiscal year.

**STATUS OF PRIOR REVIEW FINDINGS**

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**B. Report on Total Business System Review in May 2006 (Continued)**

7. NSF recommended that NEESinc finalize its accounting and financial policies and procedures manual, and incorporate information for preparing FCTR and cash requests.  
Status: Resolved. We noted that NEESinc has established accounting and financial policies and procedures manual, as well as written policies and procedures for the preparation of FCTRs and cash requests.
8. NSF recommended that NEESinc revise its FCTR preparation procedures so that information reported on the FCTRs is reconciled to the cost ledgers.  
Status: Resolved. We noted that NEESinc has been reconciling FCTR to the detail cost ledgers on a quarterly basis since the quarter ended June 30, 2006. Also, NEESinc has developed written procedures on the preparation and reconciliation of FCTRs.
9. NSF determined that the Financial Administrators (i.e., Controller and Consultant) also have permission to the FCTR, cash request, and grantee Electronic Funds Transfers (EFT) update functions, which prevents effective internal control. NSF recommended that NEESinc strengthen the segregation of duties among FCTR submission, cash drawdown and update of electronic funds transfers.  
Status: Resolved. We noted that NEESinc has assigned more personnel to perform the above duties. The Controller of NEESinc is responsible for FCTR and drawdown preparation. The Finance/Human Resources Administrator assists the Controller in the preparation of drawdowns. An outsourced accountant is responsible to review financial reporting documents and prepare bank reconciliations.
10. NSF recommended that NEESinc include the asset control tag number in the internal property files.  
Status: Resolved. We reviewed NEESinc's inventory records and noted that the tag number of each piece of equipment or property has been recorded in the inventory records.
11. NSF recommended that NEESinc develop a clear internal property capitalization policy.  
Status: Resolved. NEESinc has developed a written capitalization policy which is consistent with NSF's guidelines.

**APPENDIX C – OTHER MATTERS**

## OTHER MATTERS

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During the course of our audit, we noticed several items that we wanted to bring to NSF's attention that we feel would enhance NSF's pre-award process and overall award portfolio management process. Even though we did not review or audit NSF's award management process, we feel that bringing these items to NSF's attention would significantly provide reasonable assurance that all NSF awardee claimed costs related to NSF awards are reasonable, allowable and allocable to NSF awards; and, that the necessary policies and procedures are in place to implement an effective internal control system to safeguard NSF's assets and interests.

NSF's total award portfolio includes many awards that are collaborative in nature like NEESinc and includes many subawards that are essential to the fiscal and programmatic success of NSF's programs and awards. We determined that NEESinc did not have an adequate fiscal subaward monitoring program during the term of its award. This is significant because NEESinc was responsible for monitoring nineteen subawards amounting to [REDACTED] of the total costs charged to the NSF award (of which [REDACTED] were equipment costs). This condition was also noted in the management letter issued by NEESinc's OMB Circular A-133 auditor for the fiscal year ended September 30, 2006, as well as on NSF's March 2005 Monitoring Site Visit Report and May 2006 Total Business System Review (TBSR) of NEESinc. This problem continued during the course of the award despite NSF's efforts and recommendations to improve NEESinc's subaward monitoring process. To deter or prevent the same problems from occurring on new awardees, we suggest that NSF ensure that these awardees, especially awardees with significant subawards, have a well-established risk-based subawardee monitoring plan prior to award. That plan should ensure that adequate subawardee fiscal monitoring be performed, as necessary, to provide reasonable assurance that the subaward costs claimed are reasonable, allowable and allocable to its NSF award, and that equipment and property purchased with NSF funds are properly tracked and safeguarded.

NEESinc did not have an adequate internal control process for documenting its financial management review and approval process. Its existing policies and procedures did not include adequate provisions for documenting the review and approval of required financial functions including fringe benefits, indirect cost allocations, cash disbursements, and Financial Cash Transactions Report/Federal Financial Report (FCTR/FFR) reconciliation and reporting. The inclusion of such provisions is important because if adequate internal controls are not established by all awardees to ensure the accuracy and reliability of the financial reporting process NSF funds may not be properly accounted for and reported, and also could be subject to mismanagement. All NSF awardees should establish and implement an adequate internal control process to ensure that proper controls are in place for accurate accountability, management, and reporting of NSF funds. To deter or prevent the same problems from occurring on new awardees, we suggest that NSF ensure that these awardees have an adequate internal control process for documenting management reviews and approvals of financial transactions and reports. These controls would include providing the required guidance for compliance with Federal requirements for all awardees at the award date and the necessary personnel resources to ensure a proper segregation of duties, and management and approval process of financial transactions and reports.

**OTHER MATTERS**

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We also determined that NEESinc did not have written policies and procedures on employee timekeeping and labor cost distributions, as well as participant support costs. Even though NEESinc appears to have established and implemented processes to account for and properly report these costs, these processes were not documented into written policies and procedures to better ensure effective internal controls over the processes. This condition was also identified on NSF's March 2005 monitoring site visit report and the May 2006 Total Business System Review report on NEESinc performed by NSF officials. This is important because without written policy and procedures, established controls, policies and procedures may not be clearly and effectively communicated to and followed by all levels of employees, particularly when there is employee or management turnover. This problem continued during the course of the award despite NSF's efforts and recommendations to NEESinc to develop written policies and procedures related to this situation. To deter or prevent the same problems from occurring on new awardees, we suggest that NSF ensure that these awardees have adequate written policies and procedures for employee timekeeping, labor cost distributions and participant support costs.

**APPENDIX D – EXIT CONFERENCE**

**EXIT CONFERENCE**

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We conducted an exit conference on August 7, 2009 at NEESinc's office in Davis, California. We discussed preliminary findings and recommendations noted during the audit. Representing NEESinc were:

| <b>Name</b> | <b>Title</b> |
|-------------|--------------|
| [REDACTED]  | [REDACTED]   |

Representing the National Science Foundation – Office of Inspector General was:

| <b>Name</b>  | <b>Title</b>  |
|--------------|---------------|
| Billy McCain | Audit Manager |

Representing Mayer Hoffman McCann P.C. – Conrad Government Services Division were:

| <b>Name</b> | <b>Title</b> |
|-------------|--------------|
| [REDACTED]  | [REDACTED]   |

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