Testimony of

Dr. Richard O. Buckius
Chief Operating Officer
National Science Foundation

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on

NSF's Oversight of the NEON Project and other Major Research Facilities Developed Under Cooperative Agreements

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Madam Chairwoman, Mr. Chairman and Members of the Committee, thank you for this opportunity to discuss NSF's oversight of the NEON project and other major research facilities developed under cooperative agreements.

The National Science Foundation (NSF) supports fundamental research at the frontiers of knowledge across all fields of science and engineering. NSF serves the national interest as stated by NSF's mission to promote the progress of science; to advance the national health, prosperity and welfare; to secure the national defense; and for other purposes; and we do so through our investment in a portfolio of more than 42,000 active awards. As part of our mission, NSF funds major research facilities such as NEON, the National Ecological Observatory Network. NEON is a one-of-a-kind continental-scale research instrument consisting of a geographically-distributed complex cyber-enabled network of sensors and biological instruments that will, among other advances, use airborne remote sensing data to improve our fundamental understanding of biology, emerging disease, water use, invasive species, and agricultural, forestry, and urban land-use.

NEON Incorporated, which is responsible for the NEON project, is a private, non-profit corporation to whom NSF has provided federal financial assistance for the design, construction and early operations of the NEON network. Support for NEON began in 2007 with construction of the NEON project initiated in 2011, and early operations of the network began in 2014. NSF support for NEON construction and its operation is provided under a series of cooperative agreements, a federal financial assistance instrument.

Mr. Chairman and Madam Chairwoman, it is important to note that NSF acknowledges that NEON could have shown better judgment in the use of their management fee – even if they were not in violation of any law or regulation governing the use of those funds. The Foundation has learned a number of lessons about the governance of large facilities and management fees due to this event and has put in place changes to help ensure proper stewardship.

The management of these large facilities is of critical importance to the Foundation. NSF sometimes relies on small consortiums formed by the research community to build, manage, and operate unique scientific facilities to deliver cutting edge science to the nation. Management fees allow those groups to be viable and are an important tool for good stewardship of taxpayer dollars. Taxpayers, NSF, the scientific community and the nation would be ill-served if those groups struggled with financial resources, or if they failed.

Due to the importance of research facilities to the Foundation and based upon the lessons learned from this event, NSF is putting in place tighter oversight of this critical tool. My testimony below will go into greater detail of these changes. As requested, I will focus on the three issues related to (i) **unallowable costs**, (ii) **management fees**, and (iii) **contingency cost allowances**.

Unallowable Costs. NSF, like other federal agencies, reimburses organizations for costs incurred under federal awards that are determined to be allowable, allocable, and reasonable under federal cost principles. NSF has controls in place to prevent the reimbursement of costs that are unallowable under federal cost principles. To ensure the proper accounting of funds in accordance with federal standards, NSF looks to the provisions of the Single Audit Act of 1984. Pursuant to that Act, and as directed by Congress and the Office of Management and Budget, NSF relies on the work of non-Federal auditors performing annual OMB-prescribed A-133 audits which constitute the federal standards for performing audits of states, local governments, and non-profit organizations. These audits help ensure compliance with federal requirements and are designed to provide adequate assurance that funds under federal financial assistance awards such as NEON are properly spent.

Additionally, NSF supplements these legislatively mandated and OMB-required audits with other post-award monitoring activities that the agency undertakes, such as accounting system reviews, formal business systems reviews covering internal controls for financial and other business functions, site visits including the examination of cost records, and indirect cost rate reviews that are part of the agency's obligation to establish indirect rates under certain awards including NEON.

I would also like to note that in addition to these established cost monitoring controls, NSF has also undertaken new additional cost control measures under large facility construction projects such as NEON to provide additional assurance that awards only include amounts for allowable costs. As part of these strengthened procedures, NSF will now obtain full formal audits of awardees' accounting systems and practices prior to entering into future large facility construction cooperative agreements totaling $100 million or more in those cases where NSF is the cognizant agency and where such an audit has not been performed within the past two years. In addition, NSF has strengthened requirements set forth in the agency's Large Facilities Manual for prospective large facility awardees to provide adequate documentation of cost estimates at gateway reviews and throughout the project. These requirements, and the recently implemented requirement to obtain independent cost reviews by outside parties prior to the award of large facility construction projects, are designed to provide NSF management with additional confidence in the estimated total project costs for these awards.

Management Fees. The use of management fees by non-profit organizations such as NEON Inc. has been a topic of government review many times in the past. Dating back to the Bell Report of 1962[1], issued by the Bureau of the Budget and signed by President Kennedy, the Government has recognized the need to provide fees to non-profit organizations. Whereas fees paid to for-profit entities provide contributions to profits, modest fees paid to nonprofit organizations provide some degree of operational stability, including operating capital and the ability to meet ordinary business expenses not reimbursable under Federal awards. Since 1969 the Government Accountability Office has concluded that at least some non-reimbursable expenses incurred by non-profit organizations represent legitimate needs of the organization and do benefit the U.S. Government.[2] Both the U.S. Department of Defense and the U.S. Department of Energy have published regulations on fees.[3]

Performance of cooperative agreement awards by non-profit organizations for the operation and management of large, complex programs entail business risk similar to those assumed under execution of a contract. Many expenses covered under a management fee are appropriate for the normal conduct of business, such as certain types of equipment purchase, meeting interest payments on some forms of debt, paying certain legal expenses, financing of essential facilities deemed necessary to operations, and other purposes.

Some non-profit organizations have limited or no other financial resources to cover certain necessary business expenses that may not be reimbursable under their federal awards. These organizations have limited or no outside sources of income to accumulate earnings or assets, and therefore may have no alternate means to recoup certain costs. While we agree with the Committee that payments of management fees should not be used for expenses that do not support the goals of the research project being conducted, we note that there are legitimate and well-founded purposes for providing management fee to non-profit organizations in limited circumstances, and in fact these organizations could not effectively support major research

[1] Bureau of the Budget Report to the President on Government Contracting for Research and Development, pp. 40-41 (April 30, 1962).
[2] GAO/PLRD-82-54, GOVERNMENT OPERATIONS: Fee Guidelines Still Needed for Government-Sponsored Nonprofit Organizations (July 7, 1982), p. 4, referring to a 1969 GAO report (B-146810) titled Need for Improved Guidelines in Contracting for Research with Government-Sponsored Nonprofit Contractors.

[3] 48 CFR 210-404-74, *Fee requirements for FFRDCs*, U.S. Department of Defense and 48 CFR 970.1504-1-3, *Special considerations: Laboratory management and operations*, U.S. Department of Energy.

facility projects without relying on a management fee. This fact has been re-iterated in several Government reports, including the aforementioned Bell Report and GAO reports.

As previously noted, management fees can be used to provide an amount for working capital that may be necessary to ensure a level of retained earnings available to the organization in order to secure credit and borrowing to assure the financial health of the organization. Allowances for facilities capital may be necessary to allow an organization to acquire major assets and to address expenses that require immediate substantive financial outlays but that are only reimbursed by the government through depreciation or amortization over a period of years. Finally, management fee can provide amounts for other expenses that are necessary to support completion of a project but that are not otherwise reimbursable. Examples of potential appropriate needs of an organization include contract terminations and losses, certain appropriate educational and public outreach activities, and providing financial incentives to obtain and retain high caliber staff.

Initial consideration by NSF to pay a management fee to NEON Inc. began in 2008, after NSF became aware of the fact that as a newly formed entity without retained earnings or unrestricted assets, the organization was having problems securing credit. Practically speaking, NEON was unable to secure purchase cards for employees to make purchases necessary to support the project based on the fact that the organization had no collateral assets. Subsequently, in December 2008 NEON Inc. made a formal request to NSF for the payment of a management fee under the award. The request included information on intended uses of the management fee, including such items as contract terminations and losses, outreach activities, personnel related expenses, business meals and other activities. From 2008 to present, NEON has received a management fee amounting to approximately one-half of one percent of estimated award costs, or approximately $1.7M. The NSF organization responsible for management of the NEON cooperative agreement reviewed and approved the request consistent with the established agency practice of allowing the payment of a management fee under certain circumstances. After the initial determination of the management fee amount, NSF did not monitor or request data specific to actual fee usage since the management fees are not provided as reimbursement of any specific incurred cost, but instead are provided as an earned fee or profit. This determination not to monitor fee use was considered by NSF to be consistent with federal policy concerning the payments of fees or profits to organizations. Recently implemented updates to OMB policy guidelines in the Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (termed *Uniform Guidance*), contain provisions stating that where expressly authorized by the terms and conditions of the Federal award, profit may be earned or kept by organizations performing federal financial assistance awards.

Since management fees are to address legitimate expenses that cannot otherwise be reimbursed as a cost, more controls need to be put in place to ensure that planned uses of management fees are consistent with those limited and specific uses I have described. NSF agrees that amounts provided to organizations for a management fee warrant careful consideration of the benefits that would be obtained by NSF for providing the fee. Although payment of management fees has been a long-standing practice at NSF, guidance on those fees has not been clear and formalized, and procedures to monitor its use need to be put in place. To this end I have asked our Chief Financial Officer to work aggressively to complete new policy implementation that will provide specific guidelines on when management fees are warranted under agency financial assistance awards, provide information on appropriate uses for management fee, and implement controls to monitor actual management fee use by awardees to ensure that the use is consistent with intended purposes when the fee is established. These proposed new policies have recently been published in the Federal Register, and NSF is moving forward with implementing their use when evaluating management fee requests. These new policy requirements address the fact that a management fee is not to be used to provide organizations a means to cover expenses such as alcoholic beverages, personal or luxury items for employees, non-business related travel, or any activities that would contravene federal restrictions on lobbying. The new policy will also require that organizations requesting management fee provide information on actual uses of any management fee previously awarded by NSF in the preceding five-year period. When considering management fee for future awards, NSF will examine the extent to which awardee fee proposals have proven reliable when compared with actual uses of management fee. NSF will perform periodic reviews of management fee use under awards during performance of the project, and will examine the extent to which awardee fee proposals have proven reliable when compared with actual uses of management fee. Failure to reasonably adhere to planned uses of fee may result in reduction of future management fee amounts under the award.

NSF believes that the new policies that I have outlined will provide additional controls over management fee, and will help ensure its intended use. Since management fees are intended to address the types of legitimate costs that I have described, the agency needs to ensure that actual use of the fee is consistent with the intended use when the fee is negotiated, in that the actual fee amount is based on the representations made by the organization on its intended use. The strengthened policies that the agency is putting in place to determine and monitor management fee will help to ensure that use of the fee for reasons not consistent with the intent of the research project do not take place.

In sum, although NEON Inc.'s use of the management fee is technically permissible under NSF's award, we share your concerns that NEON could have shown better judgment in the use of their management fee. In fact, NSF has initiated action to address NEON Inc.'s management fee expenditures. NSF did not approve a request by NEON Inc. to increase their management fee under the award based on the unresolved issue identified and has also deferred the award of a management fee for early operations of the NEON network pending resolution of this matter. NSF is now in the process of analyzing data that we have requested and that has been provided by NEON Inc. detailing its past use of management fee under the NEON award. Similarly, NSF is also in the process of addressing the use of management fee under the other fourteen cooperative agreements where management fee has been provided. We share the Committee's concern that this review be completed expeditiously.

Contingency Cost Allowances. The matter of calculation and use of contingency cost allowances under NSF major research facility awards has been an outstanding issue between NSF and our Office of Inspector General since 2011. At that time, three audits commissioned by the OIG and performed by the Defense Contract Audit Agency determined that budget estimates under three major research projects being undertaken by the Agency, including NEON, had questioned costs estimates. Of those questioned budget items were approximately $223 million in questioned amounts associated with contingency estimates which are now resolved.

Contingency estimation, which is a long standing project management practice that has been addressed in numerous professional publications, has recently also been addressed by OMB's *Uniform Guidance.* Per the OMB guidance, contingency is that part of a budget estimate of future costs, typically of large construction projects, IT systems, or other items approved by the Federal awarding agencies, which is associated with possible events or conditions arising from causes, the precise outcome of which is indeterminable at the time of estimate, and that experience shows will likely result in additional costs for the approved activity or project.

Although NSF has in the past typically included contingency estimates in large facility construction awards, the NSF Office of Inspector General has disagreed with the amounts being included. For example, disagreements have arisen between NSF and the NSF OIG around what constitutes acceptable budgeting practices for contingency. There is a distinct difference between the concepts of responsibly budgeting for contingencies (using a risk-based methodology to estimate variations in established allowable construction costs under the cost principles) and the cost of paying into a general, non-specific contingency reserve. The latter is a separate cost category that is unallowable. OMB has recently clarified the difference between the two concepts. The OIG has taken a different interpretation of OMB policy and has extrapolated the term "certainty requirement" contained in the OMB guidance to mean that all costs associated with contingency estimates must be known in advance as to their time, intensity, and assurance of happening. This is not a position taken by the Agency, nor is it consistent with accepted best-practices.

In several audits, the OIG has cited the contingency provision of 2 CFR Part 220, and concluded that proposal budgets did not meet the certainty requirement of the aforementioned cost principle, nor did the estimate rest on adequate supporting documentation. However, as noted above, OMB has recently addressed these matters explicitly in publishing the *Uniform Guidance* and the rule-making process. OMB noted that the text addressing the use of contingency budgets in federal awards included in the proposed rule represented a clarification, not the adoption of a revised cost principle. As clarified by OMB through *Uniform Guidance,* a distinction is made between including contingency as part of budget estimating for large, complex activities such as large facility construction projects, (see paragraph (b) below), which is permissible, versus payments made to an organization's contingency reserve, (see paragraph (c) below), which are not. Thus, the OMB *Uniform Guidance*, 2 CFR §200.433, is determinative in this matter:

> (b) It is permissible for contingency amounts other than those excluded in paragraph (b)(1) of this section to be explicitly included in budget estimates, to the extent they are necessary to improve the precision of those estimates. Amounts must be estimated using broadly-accepted cost estimating methodologies, specified in the budget documentation of the Federal award, and accepted by the Federal awarding agency. As such contingency amounts are to be included in the Federal Award …"

(c) Payments made by the Federal awarding agency to the non-Federal entity's "contingency reserve" or any similar payment made for events the occurrence of which cannot be foretold with certainty as to the time or intensity, or with an assurance of their happening, are unallowable …"

Efforts to resolve disagreements between the Office of Inspector General and the NSF Office of Budget, Finance and Award Management on this matter, including through re-audit of the three major research facility projects, failed to resolve differences on whether amounts for contingency estimates were appropriate for inclusion in award budgets. Based on this impasse, and in accordance with federal policies set forth by OMB for resolving differences between agencies and audit organizations such as Offices of Inspectors General, recommendations made by the OIG concerning contingency estimates as well as concerning other matters associated with cost management oversight of major research facility projects, were escalated to the Agency Audit Follow-up Official in May 2014. The escalated recommendations were first reviewed by Dr. Cora Marrett, Deputy Director of NSF, as the agency Audit Follow-up official, and subsequently were re-evaluated by myself. In October 2014, after careful review of the documentation provided to me on the matter, in the capacity of Agency Audit Follow-up Official I determined that NSF's practices on estimating and using contingency estimates properly follow OMB guidance by including the contingency in the award.

My determination that contingency estimates be included in budget proposals for major research facility awards included consideration of the recently clarified guidance from OMB. The updated OMB policy guidance also explicitly states that except for certain restrictions that NSF is compliant with, amounts for contingency estimates may be included in financial assistance awards.

Conclusion. To summarize:

- NSF, like other federal agencies, only reimburses organizations for costs incurred under federal awards that are determined to be allowable, allocable and reasonable under federal cost principles. NSF has strengthened requirements, including those set forth in the agency's Large Facilities Manual for prospective large facility awardees to provide adequate documentation of cost estimates at gateway reviews and throughout the project.
- The Government Accountability Office has concluded that the use of management fees for at least some non-reimbursable expenses incurred by nonprofit organizations represent legitimate needs of the organization and that they benefit the U.S. Government.
- NSF is fully compliant with OMB guidance on the use of contingency. Except for certain restrictions NSF is compliant with, amounts for contingency estimates may be included in financial assistance awards.

Madam Chairwoman and Mr. Chairman, although NEON Inc.'s use of the management fee is technically permissible under NSF's award, NSF shares the Committee's concerns that NEON could have shown better judgment in the use of their management fee. We are following up with NEON on those findings. In addition, we have used this situation to clarify our policies and procedures in the awarding, and oversight, of those fees.

It is only with the strong support of the Inspector General and Congress that complete oversight of taxpayer resources can be ultimately achieved, and we are appreciative of those efforts. The Foundation looks forward to continue working with the Committee and with our Office of Inspector General as we implement these changes in order to best serve science and technology in the national interest.

Thank you again for the opportunity to testify. I would be pleased to answer your questions.