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www.pcaobus.org

September 27, 2011

The Honorable Mary L. Schapiro Chairman Securities and Exchange Commission 100 F Street, NE Washington, DC 20549

Dear Chairman Schapiro:

I am pleased to transmit to you a summary of a recent performance review by the Public Company Accounting Oversight Board's Office of Internal Oversight and Performance Assurance ("IOPA"), entitled, The Public Company Accounting Oversight Board's Information Technology Governance and Staffing.

IOPA commenced this review in September 2010, before I joined the PCAOB. The purpose of the review was to determine whether PCAOB's Office of Information Technology ("OIT") governance and staffing models adequately support the Board's strategic objectives. The report made 13 recommendations to the Chief Administrative Officer ("CAO"). Both the CAO and the Board concur with each of the recommendations and intend to implement them.

In the course of the PCAOB's nearly nine years of existence, the organization has undertaken several major IT development projects and numerous smaller projects. As noted in IOPA's review, some of these projects have experienced challenges, including significant delays and cost overruns. Unforeseen circumstances are a risk in any IT development project. But good IT governance and strategy are important to keep a project on course. I was briefed on the specific challenges OIT faced when I arrived at the PCAOB. Soon thereafter, in an effort to avoid recurrence on near-term projects, I established steering committees dedicated to overseeing the PCAOB's two most significant current IT development projects. One of the committees is chaired by my fellow Board member, Jay Hanson; the other is chaired by the PCAOB's Chief Administrative Officer. Among other things, these committees monitor development of system requirements and costs, evaluation of outside consulting proposals and selection of vendors. The committees also facilitate constructive communication between OIT and customer divisions and offices. They meet frequently and brief me and the Board regularly. Active Board involvement on this front will continue.



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In addition, the Board and I are carefully considering the broader governance issues that are the subject of the IOPA review. The Board agrees that the PCAOB should establish a formal framework for IT decision-making and an IT strategic plan consistent with the PCAOB's overall strategic plan, implement a well-defined enterprise architecture, and benchmark its spending and staffing against industry best practices. To this end, after an interview process that involved the full Board, the PCAOB has identified and (at this writing) is in the process of hiring a Deputy Chief Administrative Officer, who will be charged with the responsibility to provide oversight and executive direction to OIT. The new deputy is expected to join the PCAOB in October. In collaboration with the CAO and the Chief Information Officer, the new deputy will conduct an in-depth analysis of the PCAOB's IT needs, in order to put in place a formal IT decision-making framework and an IT strategic plan. This effort will also include a top-to-bottom review of IT staffing, including consideration of appropriate benchmarks, and development and implementation of plans to improve communication within OIT as well as between OIT and business owners.

While the PCAOB should benefit considerably from formalizing its IT decision-making process, and establishing an appropriate IT strategic plan and a well-defined enterprise architecture, OIT will continue to focus, with Board oversight, on its critical, foundational operations, which equip the PCAOB's nearly 700 staff with the hardware, software, information security and connectivity they need to perform their respective functions, both in PCAOB offices and on the road. I am also pleased that the PCAOB has consistently received an unqualified audit report on the effectiveness of its internal controls over financial reporting, including IT controls. In summary, the Board is committed to enhancing its IT governance to further the Board's mission and I look forward to making future reports on our progress.

Approximately 75 percent of the PCAOB's 2011 IT budget is allocated to such steady-state operations, including telecommunications, back-office systems, data storage and backup, security, technical support, application management and a variety of other matters.



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The Board intends to publish the attached summary on the PCAOB's Web site on or about October 5, 2011. You and your staff should feel free to contact me or the Director of IOPA, Peter Schleck (202-207-9085), if you have any questions or would like any additional information about the review.

Sincerely,

/James R. Doty Chairman

Enclosure: The Public Company Accounting Oversight Board's Information Technology

and Governance and Staffing (IOPA-2011-01), September 9, 2011

cc: The Honorable Elisse B. Walter

The Honorable Luis A. Aguilar The Honorable Troy A. Paredes



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PERFORMANCE REVIEW

THE PUBLIC COMPANY ACCOUNTING OVERSIGHT BOARD'S INFORMATION TECHNOLOGY GOVERNANCE AND STAFFING (IOPA-2011-001)

INTERNAL OVERSIGHT AND PERFORMANCE ASSURANCE October 5, 2011

BACKGROUND AND OBJECTIVE

The Public Company Accounting Oversight Board (PCAOB) has identified the enhancement of information technology (IT) governance as a priority in each of its strategic plans since 2007. The Board has sought to ensure and demonstrate careful stewardship over its IT resources through formal processes that provide for appropriate prioritization, funding, and oversight of new and continuing projects. At \$24.4 million, IT represents about 12 percent of the Board's 2011 budget and is the second-largest program area. Since its inception in 2003, the Board has programmed almost \$200 million for IT. As such, the Office of Internal Oversight and Performance Assurance (IOPA) conducted this review to determine whether PCAOB's Office of Information Technology (OIT's) governance and staffing models were adequately supporting the Board's strategic objectives. ^{1/}

RESULTS IN BRIEF

False starts, missteps, and abandoned initiatives by the OIT had left the Board without fundamental, industry-standard controls to ensure that its IT investment was efficient, effective, and aligned with its strategic goals. OIT had not formally adopted a governance framework, maintained an up-to-date IT strategic plan, completed an enterprise architecture, ^{2/} or benchmarked its spending and staffing against industry best

 $^{^{1/}}$ This is a public summary of the report. The full report, prepared in accordance with Government Auditing Standards, has been issued to the Board. The full report includes a detailed discussion of the review objective, scope, and methodology.

Enterprise architecture is the discipline of capturing information about the organization to support strategic planning, guide information technology investments, promote better utilization of enterprise resources, and minimize redundancies and waste.



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practices. The absence of these controls fostered dysfunction and a widespread lack of trust between the PCAOB's business units $\frac{3}{2}$ and OIT.

Recent high-profile projects illustrate, in our judgment, risks associated with less-than-optimum IT governance and control.

- PCAOB Web Site Redesign OIT deployed the redesign in 2010, rather than 2008 as originally anticipated. Business owners of the website expressed dismay that, despite the long delay, 65 significant deficiencies still needed to be fixed after deployment. Initial cost estimates for the project ranged from \$150,000 to \$205,000. Project costs later increased tenfold, to \$1.77 million.
- Registration, Annual and Special Reporting (RASR) OIT also rolled out this project 2 years later than originally planned. The business owner told IOPA that, throughout the project's lifecycle, she lacked visibility over cost data. Documents we reviewed indicated that cost estimates for RASR increased from just over \$1 million in late 2007, to about \$1.8 million in 2009. Actual costs were about \$3.1 million when the system was deployed in 2010.
- Audit Risk Information Architecture (ARIA) The Director of the PCAOB's Office of Research and Analysis (ORA) described ARIA as a cornerstone in the Board's efforts to capture, analyze, and utilize information from public sources, and to synthesize that information with data uniquely available to the PCAOB. The Director acted to hire ORA staff with IT expertise and to directly manage the project's \$3.1 million estimated costs. In essence, the Director sought to create elements of a separate IT infrastructure within ORA because he was not confident in OIT's ability to effectively manage ARIA's development and delivery.

Other examples, cited in the full report, further illustrate a breakdown in confidence between PCAOB divisions and offices, and OIT.

IT best practices for organizations include developing governance frameworks that align IT efforts with the organization's needs. To support this alignment, organizations should have IT strategic plans and an enterprise architecture. Also, most companies benchmark their IT budgets to help ensure that operations are efficient

In this report "business units" refers to the offices and divisions of the PCAOB. For example, the Office of Chief Auditor would be considered a business unit.

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relative to similarly-sized or -situated organizations. Despite a number of initiatives in some of these areas over the last several years, the PCAOB had made little progress in implementing these IT best practices.

OIT has had several false starts in establishing a governance structure, dating at least to 2004. At the time of our review, a draft "white paper" on governance had been prepared, but it had not been formally adopted, widely communicated, or reflected in the 2012 IT budget process. Similarly, OIT had previously attempted to implement strategic planning. An IT strategic plan was developed in 2008, but had not been updated since.

In 2006, OIT initiated an effort to develop an enterprise architecture. This effort was abandoned shortly thereafter. While ORA's ongoing ARIA project represents, in our view, progress toward aspects of an enterprise architecture, OIT had not developed organization-wide architecture policies and guidelines or completed efforts to document its IT systems as part of its baseline enterprise architecture.

OIT had not used formal benchmarking to evaluate its spending or staffing. A review of published benchmarks suggested that the PCAOB invests more in technology than other organizations on a per-employee and budget, or revenue dollar basis. Thus, benchmarking could be a useful tool in an overall effort to enhance OIT's role and strategy in support of the PCAOB's mission.

OIT failed to implement best practices in these areas despite recommendations made by consultants hired by the Board in 2007 and 2008. Moreover, IOPA reports issued in 2004 and 2006 criticized OIT's overall strategy as unclear and noted significant concerns regarding governance and product delivery. In those reports, IOPA noted, among other issues, that OIT's business unit customers were not sufficiently involved in requirements development, lacked transparency over how technology projects were selected and prioritized, and did not know how much the projects cost. Action to implement recommendations from these prior reviews was limited. In addition, a number of the senior staff within OIT told IOPA that OIT lacks direction, has lost the confidence of its customers, and is overstaffed. They described a culture resistant to change in which efforts at reform, such as the introduction of a more rigorous project management approach, lack top-level commitment.

The full report included 13 recommendations to the Chief Administrative Officer (CAO) aimed at addressing these longstanding concerns. The CAO and Chief Information Officer provided a consolidated response to a draft of the report. The response generally concurred with all of the recommendations, but stated that additional context and explanation was needed to provide a balanced view of the current state of IT and the progress that had been made.