SARBANES-OXLEY COMPLIANCE – MANAGING CHANGING EXPECTATIONS
January 20, 2017

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Managing Director
CHANGES IN THE COST AND SCOPE OF SOX COMPLIANCE EFFORTS
BROAD RANGES FOR DIFFERENT TYPES OF ORGANIZATIONS

Estimated internal costs for the organization’s most recent year of Sarbanes-Oxley compliance (excluding external audit-related fees):

<table>
<thead>
<tr>
<th>Size of Organization</th>
<th>Average Annual SOX Compliance Costs (internal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>$20 billion or greater</td>
<td>$2,050,000</td>
</tr>
<tr>
<td>$10 billion – $19.99 billion</td>
<td>$1,382,000</td>
</tr>
<tr>
<td>$5 billion – $9.99 billion</td>
<td>$1,342,000</td>
</tr>
<tr>
<td>$1 billion – $4.99 billion</td>
<td>$1,241,000</td>
</tr>
<tr>
<td>$500 million – $999.99 million</td>
<td>$1,124,000</td>
</tr>
<tr>
<td>$100 million – $499.99 million</td>
<td>$474,000</td>
</tr>
<tr>
<td>Less than $100 million</td>
<td>$367,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SOX Compliance Year</th>
<th>Average Annual SOX Compliance Costs (internal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beyond 2nd year of SOX compliance</td>
<td>$1,183,000</td>
</tr>
<tr>
<td>2nd year of SOX compliance</td>
<td>$1,549,000</td>
</tr>
<tr>
<td>1st year of SOX compliance</td>
<td>$925,000</td>
</tr>
<tr>
<td>Pre-1st year of SOX compliance</td>
<td>$1,020,000</td>
</tr>
</tbody>
</table>
## CHANGE IN HOURS

How did the total amount of hours your organization devoted to Sarbanes-Oxley compliance change in fiscal year 2015?

<table>
<thead>
<tr>
<th>Size of Organization</th>
<th>Hours devoted to SOX compliance increased</th>
<th>Hours devoted to SOX compliance increased more than 10 percent*</th>
</tr>
</thead>
<tbody>
<tr>
<td>$20 billion or greater</td>
<td>46%</td>
<td>61%</td>
</tr>
<tr>
<td>$10 billion – $19.99 billion</td>
<td>54%</td>
<td>65%</td>
</tr>
<tr>
<td>$5 billion – $9.99 billion</td>
<td>60%</td>
<td>75%</td>
</tr>
<tr>
<td>$1 billion – $4.99 billion</td>
<td>39%</td>
<td>79%</td>
</tr>
<tr>
<td>$500 million – $999.99 million</td>
<td>27%</td>
<td>67%</td>
</tr>
<tr>
<td>$100 million – $499.99 million</td>
<td>47%</td>
<td>76%</td>
</tr>
<tr>
<td>Less than $100 million</td>
<td>55%</td>
<td>61%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SOX Filer Status</th>
<th>Hours devoted to SOX compliance increased</th>
<th>Hours devoted to SOX compliance increased more than 10 percent*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large accelerated filer</td>
<td>51%</td>
<td>64%</td>
</tr>
<tr>
<td>Accelerated filer</td>
<td>53%</td>
<td>70%</td>
</tr>
<tr>
<td>Nonaccelerated filer</td>
<td>22%</td>
<td>89%</td>
</tr>
</tbody>
</table>
## CHANGE IN EXTERNAL AUDIT FEES

If you reported an increase in your external audit fees, please indicate the percentage increase.

### SOX Filer Status

<table>
<thead>
<tr>
<th>Increased 1-5%</th>
<th>Large accelerated filer</th>
<th>Accelerated filer</th>
<th>Nonaccelerated filer</th>
<th>Emerging growth company</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased 6-10%</td>
<td>38%</td>
<td>27%</td>
<td>85%</td>
<td>23%</td>
</tr>
<tr>
<td>Increased 11-15%</td>
<td>11%</td>
<td>17%</td>
<td>4%</td>
<td>30%</td>
</tr>
<tr>
<td>Increased 16-20%</td>
<td>10%</td>
<td>22%</td>
<td>3%</td>
<td>30%</td>
</tr>
<tr>
<td>Increased &gt;20%</td>
<td>11%</td>
<td>13%</td>
<td>4%</td>
<td>13%</td>
</tr>
</tbody>
</table>

### Size of Organization

<table>
<thead>
<tr>
<th>Increased 1-5%</th>
<th>$20 billion or greater</th>
<th>$10 billion – $19.99 billion</th>
<th>$5 billion – $9.99 billion</th>
<th>$1 billion – $4.99 billion</th>
<th>$500 million – $999.99 million</th>
<th>$100 million – $499.99 million</th>
<th>Less than $100 million</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased &gt;20%</td>
<td>7%</td>
<td>11%</td>
<td>10%</td>
<td>2%</td>
<td>2%</td>
<td>0%</td>
<td>25%</td>
</tr>
<tr>
<td>Increased 16-20%</td>
<td>7%</td>
<td>44%</td>
<td>38%</td>
<td>39%</td>
<td>3%</td>
<td>13%</td>
<td>0%</td>
</tr>
<tr>
<td>Increased 11-15%</td>
<td>29%</td>
<td>0%</td>
<td>24%</td>
<td>50%</td>
<td>82%</td>
<td>38%</td>
<td>25%</td>
</tr>
<tr>
<td>Increased 6-10%</td>
<td>14%</td>
<td>33%</td>
<td>5%</td>
<td>4%</td>
<td>11%</td>
<td>13%</td>
<td>0%</td>
</tr>
<tr>
<td>Increased 1-5%</td>
<td>43%</td>
<td>12%</td>
<td>23%</td>
<td>5%</td>
<td>2%</td>
<td>36%</td>
<td>50%</td>
</tr>
</tbody>
</table>
EFFECTS OF THE PCAOB INSPECTION REPORTS OF EXTERNAL AUDITORS

If your external audit firm required significant changes to Sarbanes-Oxley compliance activities in 2015, to what extent do you believe those changes are the result of the inspections of the registered accounting firms by the PCAOB?

- **Very much so**: 44%
- **Probably**: 27%
- **Not very much**: 13%
- **Not at all**: 4%
- **Don’t Know**: 12%

Note: The results in this section reflect responses from public company respondents but exclude those from pre-IPO organizations and emerging growth companies, which are not required to meet the auditor attestation requirement under Sarbanes-Oxley Section 404(b).
During fiscal year 2015, how many hours, on average, would you estimate your organization spent on each key control as it relates to the following activities?

- Testing management review controls: 7.3
- Creating or updating control documentation: 6.4
- Evaluating or reevaluating control design: 5.9
- Testing for control operating effectiveness: 6.2
- Testing other information produced by entity (IPE) for data used to execute key controls: 5.8
- Retesting if control operating effectiveness is not initially achieved: 5.2
- Remediating control design: 5.4
### INTERNAL CONTROL OVER FINANCIAL REPORTING

How has the internal control over financial reporting changed since Sarbanes-Oxley Section 404(b) was required for your organization?

<table>
<thead>
<tr>
<th>Size of Organization</th>
<th>Significantly/moderately improved</th>
</tr>
</thead>
<tbody>
<tr>
<td>$20 billion or greater</td>
<td>65%</td>
</tr>
<tr>
<td>$10 billion – $19.99 billion</td>
<td>68%</td>
</tr>
<tr>
<td>$5 billion – $9.99 billion</td>
<td>62%</td>
</tr>
<tr>
<td>$1 billion – $4.99 billion</td>
<td>37%</td>
</tr>
<tr>
<td>$500 million – $999.99 million</td>
<td>40%</td>
</tr>
<tr>
<td>$100 million – $499.99 million</td>
<td>65%</td>
</tr>
<tr>
<td>Less than $100 million</td>
<td>56%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SOX Filer Status</th>
<th>Significantly/moderately improved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large accelerated filer</td>
<td>65%</td>
</tr>
<tr>
<td>Accelerated filer</td>
<td>69%</td>
</tr>
<tr>
<td>Nonaccelerated filer</td>
<td>13%</td>
</tr>
<tr>
<td>Emerging growth company</td>
<td>63%</td>
</tr>
</tbody>
</table>
PCAOB INSPECTIONS PROCESS
• PCAOB inspects registered public accounting firms to assess compliance with the Sarbanes-Oxley Act, the rules of the Board, the rules of the Securities and Exchange Commission, and professional standards, in connection with the firm's performance of audits, issuance of audit reports, and related matters involving U.S. companies, other issuers, brokers, and dealers. This in-depth inspection covers:
  – Certain aspects of a limited number of audits performed by the audit firm
  – Certain elements of the firm’s system of quality control over its audit processes
• PCAOB issued 219 in 2015 and in 2016 issued 148 through 11/9/16
• Nine domestic firms are inspected every year
  – Six global network firms which audited 99% of total market capitalization of issuers from 2011-2014: BDO, Deloitte, E&Y, Grant Thornton, KPMG, PwC
  – Three non-affiliate firms: Crowe Horwath, MaloneBailey, McGladrey
• The Board makes portions of the reports available to the public; however, certain information is restricted from public disclosure, or its disclosure is delayed.
In April 2016, the PCAOB issued a Staff Inspections Brief with a Preview of Observations from 2015 Inspections of Audits of Issuers.

The overall number of audit deficiencies has decreased in 2015 compared to the 2014 audit cycle. Contributing factors include new practice aids and checklists, coaching and support to teams, and monitoring the quality of audit work performed.

The most frequent audit deficiencies continue to be in the key areas of internal controls over financial reporting, assessing and responding to risks of material misstatement, and auditing accounting estimates, including fair value measurements.

The 2015 inspections found an increase in the number of deficiencies around:
- Business combinations and the accounting estimates related to them
- Investments and pricing hard to value investment securities
- Asset impairment due to fluctuating oil prices

The most frequently observed audit deficiencies related to revenue and receivables, non-financial assets (including goodwill and intangibles), inventory, financial instruments, and allowance for loan losses.

Additional focus areas with issues include the statement of cash flows and income taxes.

Audit Committee communications, auditor independence and engagement quality control remain ongoing areas of focus with deficiencies found primarily in the non-global network firms.

ICFR remains a prominent deficiency area in the PCAOB inspection reports. ICFR deficiency rates range from 18% on the low end to 65% on the high end with the annually inspected firms in their most recent inspection report.
DEFICIENCY AREAS HIGHLIGHTED IN THE REPORTS

- Gaps in evaluating the control procedures performed for appropriateness against the control objectives, including whether they addressed GAAP requirements.
- Controls not identified or tested, including ITGC and application controls.
- Management Review Controls: gaps in evaluating design and testing management review controls precision including understanding the nature of review procedures, and criteria for follow-up investigation.
- Testing issues:
  - Didn’t test Information Produced by Entity (IPE).
  - Coverage missed some transaction streams.
  - Centralized control coverage not sufficient and presumption of homogeneous controls across locations.
  - Failed to update testing for year-end and Q4 coverage.
  - Failed to evaluate SOC gap period between the SOC report date and company yearend.
  - Failed to sufficiently test compensating ITGC controls where primary controls failed.
  - Inappropriate reliance on others.
- Deficiency analysis:
  - Failed to evaluate the effect of errors identified in substantive testing on control operating effectiveness.
  - Failed to evaluate effects of exceptions on its conclusion.
CYBERSECURITY
Types of controls for timely recording and disclosure:
- Management issuing a memo to the Auditor
  - General description of the relevant risks;
  - People, processes and technology in place to address these risks;
  - List of recent internal audit projects (non-SOX) performed; and
  - Statement that management is or is not aware of any relevant breaches this year that would warrant disclosure to investors.

Includes known liabilities and contingent liabilities/claims.

Cybersecurity Systems and Risks Reporting Act under consideration by congress.
- Would require Audit Committee cybersecurity expert.
- Amends Sarbanes-Oxley Act of 2002 to apply to cybersecurity systems and cybersecurity systems officers regarding corporate responsibility for reporting and managements assessments of internal control structures and procedures.

AICPA Cybersecurity Attestation Initiative
IT SOX TRENDS
IT SOX TRENDS

- Material weaknesses around ITGC
- Canned report baselining – initial and ongoing schedule
- Common controls for multiple applications – when one application has ITGC issues, you may need to split out controls
- Scope of ITGC for SOX when new external auditors onboard
- SDLC for ERP implementations
404(A) TO 404(B) TRANSITION IMPLICATIONS
404(A) TO 404(B) TRANSITION IMPLICATIONS

- It's a big leap to get to the rigor of the PCAOB standards for ICFR
- Some of the common challenge areas:
  - Management review control precision
  - Depth of walkthroughs
  - Spreadsheet and EUC controls
  - Coordination with external auditors
  - SOC report analysis
  - COSO present and functioning and operating together analysis
  - Fraud risk assessment
  - Using external auditor’s templates
  - IPE testing
  - Testing approach
  - Deficiency evaluation
OUTSOURCED PROCESSES AND SSAE 16 SOC 1 REPORTS
| Management is responsible for gaining an understanding of the controls around its processes. |
| Determine the risk-based scoping priority of the process. |
| Document the process and key controls performed at the service provider. |
| Perform on-site testing. |
| Recommend enhancements for control gaps. |
EVALUATING THE SOC 1 REPORT

• **Assess the Scope of the Report**
  - Outline all of the significant operations that the Service Provider performs for the company.
  - Determine whether the services that the Service Provider performs for the company are included in the report.
  - If significant operations performed by the Service Provider are not included in the scope of the report, determine whether additional procedures may need to be performed.

• **Evaluate the Opinion and Exceptions**
  - An opinion can be qualified on or unqualified.
  - Review the depth of testing for sufficiency as the quality of these reports varies amongst auditors.
  - Evaluate the impact a qualified report on the control environment and assess whether mitigating controls exist to reduce the likelihood that a material error at the Service Provider would not be detected.
  - Exceptions in testing may still exist in a clean report and have an impact on the company. Assess the nature, extent and overall significance of the control and the effect of the exception.
  - Evaluate the implications of the exceptions and determine whether the exceptions relate to a key control.
  - Consider the effect of any complementary controls that might mitigate the effect of the exception.
  - Include the exception in the control deficiency list if the exception impacts a key control.
EVALUATING THE SOC 1 REPORT (CONT.)

- **Map User Control Considerations**
  - Controls relating to services provided by a Service Provider are referred to as "User Controls." User Control Considerations (UCC) are typically documented in the report.
  - Assess the actual controls against the UCCs identified by the Service Provider and identify any gaps. Mapping the UCCs to controls in place helps to provide assurance that your controls would detect or prevent a misstatement in a timely manner, if a breakdown of controls occurred at the Service Provider.
  - Review the control descriptions for robustness around management review controls.
  - Evaluate whether internal controls are in place to monitor the activities performed by the Service Provider.
  - Evaluate sub-service provider implications, if necessary.

- **Cover the Gap Period**
  - The subsequent period of time between the "as of" date for a Type I, or the "period end" date for a Type II, and the company’s fiscal year-end date is called the Gap Period. Depending on the length of time between the "as of" or "period end" date and the company’s year-end date, additional procedures may be necessary to gain comfort over controls at the Service Provider.
CONTROLS AROUND DISCLOSURES
CONTROLS AROUND DISCLOSURES

Each footnote disclosure needs its own control

Areas receiving focus:

- Segment reporting
- Going concern assessment
- Earnings release process
- Non-GAAP measures and 302 process
ON THE HORIZON
RECENT AND UPCOMING CHANGES

• SSAE 18 is effective for SOC report opinions dated on or after May 1, 2017.

• Greater focus on subservice providers as well as more clarity around coverage.

• Registered audit firms are required to submit Form AP, Auditor Reporting of Certain Audit Participants, to disclose the names of engagement partners and other accounting firms that participated in audits of public companies.

• The work of third party valuation experts is getting a lot more scrutiny.

• Analysis of the impact and the disclosure of adopting new accounting standards is receiving more focus from the SEC and the external auditors.

• Enhanced focus on the reliance of work performed by others, including member firms.

• Some audit firms requiring IA to use random number generators to make their sample selections if they are relying on IA’s work.
### IMPACT ON YOUR PROCESS/METHODOLOGY

**Plan**

- Plan effectively.
- More frequent touch-points with external auditors to confirm:
  - Scope
  - Approach
  - Reliance on IA
  - Use of auditor templates
  - Timing of joint walkthroughs
  - Sample selection approach
- Read PCAOB inspection reports and discuss / challenge the impact on your company.

**Scope**

- Explain rationale for rankings on low risk/ immaterial areas.
- External auditors improving how they apply the top-down, risk-based approach.
- Consider any changes to controls due to implementing revenue recognition and other accounting standards.

**Document**

- Define control precision in documentation.
- Identify critical data used as part of key controls (IPE/EAE).
- Document approach to implementing new accounting standards and disclosure requirements around revenue, cash flow, going concern, leases, non-GAAP accounting, etc.
- Ensure documentation addresses all relevant transaction streams.

**Design Effectiveness**

- Increase focus on assessing the key elements of control design.
- More documentation around conclusion of design effectiveness.
- Explain why exceptions from the auditor’s statutory audit are not material weaknesses.
- Emphasis on reviewing SOC reports for sufficiency.

**Operating Effectiveness**

- Continued focus on testing the completeness and accuracy of reports and data in primary controls (IPE/EAE).
- Continued focus on testing precision of management review controls (BTR).
- Expanded level of depth of documentation in test results.
- Emphasis on roll forward testing with more requests to sample Q4.
- Emphasis on user access with expansion of applications in scope.

**Evaluate Results**

- Unique deficiency analysis templates used by audit firms.
- Connecting similar deficiencies in different areas and/or locations to assess impact.
- Increased focus on evaluating compensating controls.

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**Ongoing Communication with External Auditors, Audit Committee, Management & Process Owners**
Face the Future with Confidence