OBSERVATIONS FROM 2010 INSPECTIONS OF DOMESTIC ANNUALLY INSPECTED FIRMS REGARDING DEFICIENCIES IN AUDITS OF INTERNAL CONTROL OVER FINANCIAL REPORTING

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Executive Summary

The Public Company Accounting Oversight Board (the "PCAOB" or the "Board") is issuing this report to provide information about the nature and frequency of deficiencies in firms' audits of internal control over financial reporting detected during the PCAOB's 2010 inspections of eight domestic registered firms that have been inspected every year since the PCAOB's inspection program began ("firms" or "registered firms"): BDO Seidman, LLP; Crowe Horwath LLP; Deloitte & Touche LLP; Ernst & Young LLP; Grant Thornton LLP; KPMG LLP; McGladrey LLP; and PricewaterhouseCoopers LLP.

In an audit of internal control over financial reporting ("audit of internal control"), the auditor's objective is to express an opinion on the effectiveness of the company's internal control over financial reporting ("internal control"). Under SEC rules, a company's internal control cannot be considered effective if one or more material weaknesses in internal control exist. Thus, under PCAOB Auditing Standard No. 5, *An Audit of Internal Control Over Financial Reporting That Is Integrated with An Audit of Financial Statements* ("AS No. 5"), the auditor must plan and perform the audit to obtain reasonable assurance about whether material weaknesses exist as of the date specified in management's assessment, which generally is the date of the company's annual financial statements.

An audit of internal control includes, among other things, assessing the risk that material weaknesses exist, testing important entity-level controls and important controls over significant financial statement accounts and disclosures based on the assessed risks, and evaluating whether identified deficiencies in internal control are material weaknesses. Deficiencies in the testing and assessment of internal control may increase the risk of the auditor failing to identify a material misstatement since the level of substantive testing is predicated on the auditor's assessment of the effectiveness of the issuer's internal controls.

The Board is concerned about the number and significance of deficiencies identified in firms' audits of internal control during the 2010 inspections, which generally involved reviews of the integrated audits of financial statements and internal control ("integrated audits") for issuers' fiscal years ending in 2009. This report describes the most pervasive deficiencies identified in firms' auditing of internal control during the 2010 inspections, and also includes information on the potential root causes of the deficiencies. Although not specifically described in this report, the Board is also concerned that the rate of these deficiencies increased during the Board's 2011 inspections. The Board emphasizes, however, that the findings described in this report should be considered against the broader background that, in many cases, the Inspections staff did not identify significant audit deficiencies in the portions of audits of
internal control that were reviewed in 2010 and 2011, an encouraging fact that reflects well on the firms' ability to implement AS No. 5 appropriately when their engagement teams approach the issues properly.

**Overall Findings**

In 46 of the 309 integrated audit engagements (15 percent) that were inspected in 2010, Inspections staff found that the firm, at the time it issued its audit report, had failed to obtain sufficient audit evidence to support its audit opinion on the effectiveness of internal control due to one or more deficiencies identified by the Inspections staff. In 39 of those 46 engagements (85 percent) where the firm did not have sufficient evidence to support the internal control opinion, representing 13 percent of the 309 integrated audit engagements that were inspected, the firm also failed to obtain sufficient audit evidence to support the financial statement audit opinion.

In addition, in another 50 of the 309 integrated audit engagements, Inspections staff identified deficiencies in the auditing of internal control that did not involve findings of such significance that they indicated a failure to support the firm's internal control opinion. These deficiencies, however, did evidence deficiencies in some firms' systems of quality control of such significance that in the Board's view they require remediation.

The deficiencies do not mean the issuer's financial statements were materially misstated or that the issuer's internal controls were inadequate. Generally, the deficiencies related to execution issues on the part of individual engagement teams where those teams did not meet the requirements of the firms' methodologies.

**Deficiencies in Audits of Internal Control**

The most pervasive deficiencies identified in auditing internal control related to firms' failures to:

- Identify and sufficiently test controls that are intended to address the risks of material misstatement;

- Sufficiently test the design and operating effectiveness of management review controls that are used to monitor the results of operations, such as: (1) monthly comparisons of budget and actual results to forecasts for revenues and expenses; (2) comparisons of other metrics, such as profit margins and certain expenses as a percentage of sales; and (3) quarterly balance sheet reviews;
• Obtain sufficient evidence to update the results of testing of controls from an interim date to the company's year end (i.e., the roll-forward period);

• Sufficiently test the system-generated data and reports that support important controls;

• Sufficiently perform procedures regarding the use of the work of others; and

• Sufficiently evaluate identified control deficiencies and consider their effect on both the financial statement audit and on the audit of internal control.

Inspections staff identified two or more of the deficiencies noted above in 32 of the 46 integrated audit engagements (70 percent) that were inspected in 2010 where the firm failed to support its internal control opinion.

**Potential Root Causes of Deficiencies**

Inspections staff performed analyses and procedures to identify root causes of the deficiencies and identified several factors that may have contributed to the deficiencies in the audit of internal control:

• Improper application of the top-down approach to the audit of internal control as required by AS No. 5;

• Decreases in audit firm staffing through attrition or other reductions, and related workload pressures;

• Insufficient firm training and guidance, including examples of how to apply PCAOB standards and the firm's methodology; and

• Ineffective communication with firm's information system specialists on the engagement team.

Based on the Inspections staff's analyses of the deficiencies identified, it appears that firms need to perform more thorough analyses of both the risk of material misstatement and the approach taken to auditing internal control. Deficiencies identified in firms' testing and assessment of controls generally contributed to deficiencies in firms' substantive audit procedures to test account balances and transactions, as the nature, timing, and extent of firms' substantive procedures were based on a control reliance approach that was not supported by the audit procedures performed.
Firms should perform their own root cause analyses for the deficiencies identified in this report, if applicable, and take appropriate corrective action. Firms need to monitor and evaluate whether their corrective actions adequately address the deficiencies identified in this report.

**Actions Needed**

Deficiencies in the auditing of internal control are continuing to occur, and firms should take note of the matters identified in this report in planning and performing their audits. In 2011 inspections of the firms, the percentage of integrated audits that Inspections staff identified as having insufficiently supported opinions on the effectiveness of internal control climbed to approximately 22 percent (although not all reports on those inspections have been finalized). Of the engagements identified as having such deficiencies, approximately 82 percent were identified by Inspections staff as also having insufficiently supported opinions on the financial statement audit.

In addition, in another 20 percent of the integrated audits that were inspected, Inspections staff identified deficiencies in the auditing of internal control that did not involve findings of such significance that they indicated a failure to support the firm's internal control opinion. These deficiencies, however, did evidence deficiencies in some firms' systems of quality control of such significance that in the Board's view they require remediation.

Firms with identified auditing deficiencies are required to address those deficiencies in a manner consistent with PCAOB auditing standards. Those firms also should analyze potential root causes of the deficiencies and take appropriate actions to prevent the recurrence of similar issues in the future.

Although this report is based on inspections of eight domestic firms, the Board's inspections have found similar problems with audits of internal control at other registered firms. Therefore, all registered firms should review this report and consider whether the auditing deficiencies that the Board has observed could manifest themselves in their practices. Firms should be proactive in considering how to prevent similar deficiencies, through strong firm quality control systems, robust training and guidance and by seeking ways to better anticipate and address risks that might arise in specific issuer audits.

Audit committees may find this report useful in fulfilling their responsibilities with respect to independent auditors. Audit committees may consider inquiring of the issuer's auditor how the controls to be tested will address the assessed risks of material misstatement for relevant assertions of significant accounts and disclosures. Also, audit
committees may consider discussing with the auditor his or her assessment of risks, evaluation of control deficiencies, and whether the auditor has adjusted as necessary the nature, timing, and extent of his or her control testing and substantive audit procedures in response to risks related to identified control deficiencies.
Background

The Board adopted Auditing Standard No. 5, An Audit of Internal Control Over Financial Reporting That Is Integrated with An Audit of Financial Statements ("AS No. 5") on July 27, 2007. Since its adoption, the Board has been monitoring the execution of the standard.

AS No. 5 establishes requirements and provides direction that applies when an auditor is engaged to perform an audit of management’s assessment of the effectiveness of internal control over financial reporting ("audit of internal control") that is integrated with an audit of the financial statements. Risk assessment underlies the entire audit process described in AS No. 5, including the determination of significant accounts and disclosures and relevant assertions, the selection of controls to test, and the determination of the extent of audit evidence necessary for a given control. AS No. 5 is designed to focus auditors on the most important matters in the audit of internal control and avoid procedures that are unnecessary to an effective audit of internal control.

In 2009, the Board published a report on the first-year implementation of AS No. 5, which focused on auditors’ efforts to transition to the new standard. The report noted that Inspections staff found that the auditors whose work was inspected generally had focused their procedures on the areas that they had assessed as higher risk. Inspections staff observed, though, deficiencies in some engagement teams' implementation of certain aspects of AS No. 5. These deficiencies included instances

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1/ Paragraph 1 of AS No. 5.
2/ Paragraph 10 of AS No. 5.
where the engagement teams could have improved the audit by shifting more of their focus to the procedures that addressed audit areas of higher risk, as well as instances in which the auditors' procedures in an audit of internal control should have been more effective.

The Board has continued to monitor the execution of AS No. 5. The Board is concerned about the number and significance of deficiencies identified in firms' audits of internal control during the 2010 inspections, which generally involved reviews of the integrated audits of financial statements and internal control ("integrated audits") for issuers' fiscal years ending in 2009. Furthermore, although not specifically described in this report, the Board is concerned that the rate of these deficiencies increased during the Boards' 2011 inspections. Deficiencies in the testing and assessment of internal control generally increase the risk of the auditor failing to identify a material misstatement since the level of substantive testing is predicated on the auditor's assessment of the effectiveness of the issuer's internal controls.

This report describes the most pervasive deficiencies identified in firms' auditing of internal control during the 2010 inspections. This report also includes information on the potential root causes of the deficiencies. The Board emphasizes, however, that the findings described in this report should be considered against the broader background that, in many cases, the Inspections staff did not identify significant audit deficiencies in the portions of audits of internal control that were reviewed in 2010 and 2011, an encouraging fact that reflects well on the firms' ability to implement AS No.5 appropriately when their engagement teams approach the issues properly.

This report provides information about the nature and frequency of deficiencies in firms' audits of internal control detected during the PCAOB's inspections of eight domestic registered firms that have been inspected every year since the PCAOB's inspection program began ("firms" or "registered firms"): BDO Seidman, LLP; Crowe Horwath LLP; Deloitte & Touche LLP; Ernst & Young LLP; Grant Thornton LLP; KPMG LLP; McGladrey LLP; and PricewaterhouseCoopers LLP. Those inspections generally involved reviews of integrated audits for issuers' fiscal years ending in 2009.4/ Although

4/ The discussion in this report of any audit deficiency reflects information reported to the Board by the Inspections staff and does not reflect any determination by the Board as to whether any firm engaged in any conduct for which it could be sanctioned through the Board’s disciplinary process. For additional discussion of this distinction, see PCAOB Release No. 104-2004-001, Statement Concerning the Issuance of Inspection Reports (Aug. 26, 2004) at 8-9.
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this report is based on inspections of eight domestic firms, the Board's inspections have found similar problems with audits of internal control at other registered firms.

This report contains three parts: Part I describes observations from the Board's inspections, including examples of the most significant types of deficiencies identified; Part II discusses the Inspections staff's consideration of potential root causes of those audit deficiencies; and Part III discusses future inspections.

Part I: Observations from Board Inspections

In 46 of the 309 integrated audit engagements (15 percent) that were inspected in 2010, Inspections staff found that the firm, at the time it issued its audit report, had failed to obtain sufficient appropriate audit evidence to support its audit opinion on the effectiveness of internal control due to one or more deficiencies identified by the Inspections staff. Additionally, in 39 of those 46 engagements (85 percent), representing 13 percent of the 309 integrated audit engagements that were inspected, the firm, at the time it issued its audit report, had also failed to obtain sufficient appropriate audit evidence to support its audit opinion on the financial statements.

In addition, in another 50 of the 309 integrated audit engagements, Inspections staff identified deficiencies in the auditing of internal control that did not involve findings of such significance that they indicated a failure to support the firm's internal control opinion. These deficiencies, however, did evidence deficiencies in some firms' systems of quality control of such significance that in the Board's view they require remediation.

The deficiencies do not mean the issuer's financial statements were materially misstated or that the issuer's internal controls were inadequate. Generally, the deficiencies related to execution issues on the part of individual engagement teams where those teams did not meet the requirements of the firms' methodologies.

Deficiencies in the testing of internal controls can result in firms failing to perform sufficient substantive audit procedures to support their opinion on the financial statements. For example, tests of controls may be used both to support a firm's opinion on the control environment and to support the firm's opinion on the financial statements.

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5/ For audits that were subject to inspections in 2010, see paragraph .01 of AU sec. 326, Evidential Matter. For audits of fiscal years beginning on or after December 15, 2010 see Auditing Standard No. 15, Audit Evidence, paragraph .01.

6/ Inspections staff findings do not necessarily mean there is a material weakness in the issuer's internal control or a material error in the issuer's financial statements.
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on the effectiveness of internal control and to support a reduction in substantive tests in financial statement audits. In those situations, inadequate testing of controls can result in inappropriate reliance on controls and, consequently, inappropriate reduction of substantive tests in the financial statement audits.

The most pervasive deficiencies identified in auditing internal control related to firms’ failures to:

- Identify and sufficiently test controls that are intended to address the risks of material misstatement;
- Sufficiently test the design and operating effectiveness of management review controls that are used to monitor the results of operations, such as: (1) monthly comparisons of budget and actual results to forecasts for revenues and expenses; (2) comparisons of other metrics, such as profit margins and certain expenses as a percentage of sales; and (3) quarterly balance sheet reviews;
- Obtain sufficient evidence to update the results of testing of controls from an interim date to the company’s year end (i.e., the roll-forward period);
- Sufficiently test the system-generated data and reports that support important controls;
- Sufficiently perform procedures regarding the use of the work of others; and
- Sufficiently evaluate identified control deficiencies and consider their effect on both the financial statement audit and on the audit of internal control.

Inspections staff identified two or more of the deficiencies noted above in 32 of the 46 integrated audit engagements (70 percent) that were inspected in 2010 where the firm failed to support its internal control opinion.

Identify and Sufficiently Test Controls That Address Assessed Risks of Material Misstatement

An auditor should test those controls that are important to the auditor's conclusion about whether the company’s controls sufficiently address the assessed risk
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of misstatement to each relevant assertion. Inspections staff have identified instances in which firms failed to identify and sufficiently test controls that are intended to address assessed risks of material misstatement for significant accounts and disclosures. Among the areas that were subject to inspection, the most common audit areas with deficiencies attributable to failures to identify and test controls were: (1) revenue, (2) inventory, (3) fair value of financial instruments, and (4) valuation of pension plan assets. Examples of deficiencies identified in each of these specific areas are provided below.

I. Revenue

Inspections staff identified instances in which engagement teams did not identify and sufficiently test controls that addressed risks of material misstatement regarding revenue. Examples include controls over: (1) revenue at certain significant business units or for certain significant categories of revenue; (2) the identification of and accounting for certain significant contract provisions, such as product discounts, post-delivery obligations, and revenue-sharing arrangements; and (3) certain significant inputs used in determining revenue under the percentage of completion method of accounting.

II. Inventory

Inspections staff identified instances in which engagement teams did not identify and sufficiently test controls over inventory, particularly those related to the valuation of inventory. For example, deficiencies were reported where engagement teams did not identify and sufficiently test controls related to the determination of the excess and obsolete inventory reserves. In addition, there were other instances where engagement teams failed to identify and sufficiently test controls over the pricing of significant components of inventory.

III. Fair Value of Financial Instruments

Inspections staff identified instances in which engagement teams did not identify and sufficiently test controls over the fair value of financial instruments and related disclosures. For example, Inspections staff identified instances where firms did not identify and sufficiently test controls over the inputs that the issuer used to value hard-to-value financial instruments. In other instances, Inspections staff identified that the firm did not identify and sufficiently test any controls over the issuer's process for

\[7/\] Paragraph 39 of AS No. 5.
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identifying the level of the issuer’s securities within the fair value hierarchy set forth in Financial Accounting Standards Board Accounting Standards Codification Topic 820, *Fair Value Measurement*.

IV. Valuation of Pension Plan Assets

Inspections staff identified instances in which engagement teams did not identify and sufficiently test controls over the valuation of pension plan assets. In some instances, the engagement teams failed to sufficiently test any controls over valuation of pension plan assets. In other instances, the engagement teams tested controls that did not operate at a sufficient level of precision to address the assessed risk of material misstatement. In certain of the instances in which an engagement team’s identification and testing of controls appeared to be inadequate, the substantive audit procedures to test the valuation of pension plan assets also appeared to be insufficient, for example, because sample sizes for substantive testing purposes were based on reliance on a control that was not supported by the control testing performed.

**Testing the Design and Operating Effectiveness of Selected Controls**

An auditor should test the operating effectiveness of a control by determining whether the control is operating as designed and whether the person performing the control possesses the necessary authority and competence to perform the control effectively.8/ Procedures the auditor performs to test design effectiveness include a mix of inquiry of appropriate personnel, observation of the company’s operations, and inspection of relevant documentation.9/ Walkthroughs that include these procedures ordinarily are sufficient to evaluate design effectiveness.10/

For each control selected for testing, the evidence necessary to persuade the auditor that the control is effective depends upon the risk that the control might not be effective, and if not effective, the risk that a material weakness would result.11/ As the risk associated with the control being tested increases, the evidence that the auditor

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8/ Paragraph 44 of AS No. 5.
9/ Paragraph 43 of AS No. 5.
10/ *Id.*
11/ Paragraph 46 of AS No. 5.
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should obtain also increases.\textsuperscript{12} The evidence needed by the auditor to test the
effectiveness of controls depends upon the mix of the nature, timing, and extent of the
auditor's procedures.\textsuperscript{13}

Some types of tests, by their nature, produce greater evidence of the
effectiveness of controls than other tests.\textsuperscript{14} The following tests that the auditor might
perform are presented in order of the evidence the tests ordinarily would produce, from
least to most: inquiry, observation, inspection of relevant documentation, and re-
performance of a control.\textsuperscript{15} Inquiry alone does not provide sufficient evidence to support
a conclusion about the effectiveness of a control.\textsuperscript{16}

Inspections staff identified deficiencies in the nature of control testing performed
in several of the engagements that were inspected in 2010. The most pervasive
deficiencies identified by Inspections staff were with respect to firms' testing of (1)
management review controls and (2) controls during the roll-forward period, when
controls had been tested during an interim period.

V. Management Review Controls

Inspections staff have observed that some firms have employed approaches that
placed significant emphasis on testing of controls involving reviews performed by
management. Such management reviews were often performed to monitor the results
of operations and most often consisted of: (1) monthly comparisons of budget and
actual results to forecasts for revenues and expenses, (2) comparisons of other metrics,
such as profit margins and expenses as a percentage of sales; and (3) quarterly
balance sheet reviews.

Testing the design and operating effectiveness of these types of management
reviews may involve the auditor performing procedures to obtain an understanding of
and evaluating, on a test basis, the procedures performed in management's review,

\textsuperscript{12} Id.
\textsuperscript{13} Paragraph 49 of AS No. 5.
\textsuperscript{14} Paragraph 50 of AS No. 5.
\textsuperscript{15} Id.
\textsuperscript{16} Id.
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including the basis for matters warranting further attention from management, the steps taken and evidence obtained by management to make informed decisions on those matters, and the misstatements identified or conclusions reached by management based on the procedures that were performed. In addition, system-generated data and reports used by management in the review should be tested.

In some instances, Inspections staff observed that the firms did not adequately test these controls for one or a combination of the following reasons:

- The firm failed to sufficiently test whether management review controls were appropriately designed and operated at an appropriate level of precision to identify a material misstatement. For example, the engagement team did not gain an understanding of how the information used in the review controls was generated to assess the design of the review and approval process, and to gain an understanding of the output from the process. Further, the engagement team's test of the operating effectiveness of the review controls was limited to reading notes of meetings to verify that the appropriate individuals attended the meetings and that certain account balances were discussed;

- The firm failed to test the controls over the completeness and accuracy of the system-generated data and reports used in the operation of management review controls. For example, management used reports that were generated by the issuer's information system to perform its review control; however, the engagement team did not test controls over the accuracy and completeness of these reports. In addition, the engagement team did not test the reports to verify the completeness and accuracy of the individual variance calculations to determine whether the investigation of other variances was necessary;

- The firm failed to sufficiently test the design and operation of the management review control as the firm did not understand and evaluate the criteria used by management to identify items for investigation and/or determine whether specific items that were investigated were resolved. For example, the issuer's management review control for reviewing the operating results of various business units consisted of the issuer's chief financial officer and controller reviewing variances from forecast, prior year and budget. However, there were no specified thresholds for which management was required to provide a documented response for a fluctuation; or

- The firms' testing of management review controls consisted solely of inquiries of management or the person that performed the review, or inspecting evidence of the reviewer's acknowledgement that a review was performed without obtaining
and evaluating evidence that the appropriate controls within the review were designed and operating effectively to achieve the appropriate control objectives. For example, the engagement team did not obtain corroboration of management's explanations of the variances from other evidential matter in order to conclude that the control was operating effectively.

Firms should ensure that they have a basis for the level of reliance they have placed on management review controls, taking into account the evidence on the effectiveness of these controls and their associated risks. The risk associated with a control consists of the risk that the control might not be effective and, if not effective, the risk that a material weakness would result.\(^{17/}\) As the risk associated with the control being tested increases, the evidence that the auditor should obtain also increases.\(^ {18/}\) Factors that affect the risk associated with a control include, among others:

- The nature and materiality of misstatements that the control is intended to prevent or detect;
- The degree to which the control relies on the effectiveness of other controls (e.g., the control environment or information technology general controls); and
- The complexity of the control and the significance of the judgments that must be made in connection with its operation.\(^ {19/}\)

Auditors should be aware of the judgments made by the individuals performing the management review controls, and should understand the factors the individual evaluated to determine whether the control was effective. They should also assess the extent to which those judgments are based on evidence and other relevant information that was available to obtain corroboration of management's assertions.

Inspections staff identified deficiencies in testing of management review controls in various areas, with the deficiencies most often associated with the allowance for loan losses, revenue, and situations in which management reviews were considered to be controls that compensated for identified control deficiencies.

\(^{17/}\) Paragraph 46 of AS No. 5.

\(^{18/}\) Id.

\(^{19/}\) Paragraph 47 of AS No. 5.
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VI. Testing of Controls During the Roll-forward Period

When the auditor reports on the effectiveness of controls as of the company's year end and obtains evidence about the operating effectiveness of controls at an interim date, the additional evidence that is necessary to update the results of testing from an interim date to the company's year end (i.e., the roll-forward period) depends on the following factors: (1) the specific control tested prior to year end, including the risks associated with the control and the nature of the control, and the results of those tests; (2) the sufficiency of the evidence of the effectiveness of the operation of the control obtained at an interim date; (3) the length of the remaining period between the interim date and year end; and (4) the possibility that there have been any significant changes in internal control subsequent to the interim date.20/

Inspections staff have identified instances in which firms tested significant controls at an interim date and either did not perform any testing or used inquiry alone to update the results of their testing of higher risk controls that had been performed prior to year end. For example, the engagement team performed tests of highly subjective controls during the interim period, three to six months prior to year end. Yet the engagement team's procedures to update the results of its testing of these controls from the interim date to year end were limited to general inquires as to whether the operation of any of these controls had changed, despite higher degrees of risks associated with these controls, including, in some cases, high inherent risks or heightened fraud risks. In another example, the engagement team's procedures to update the results of its testing of internal control for the six-month period from the interim date to year end were limited to inquiry, including for higher-risk controls and controls affected by a change in management review and approval responsibilities. In situations such as these, inquiry alone would not provide sufficient appropriate audit evidence during the roll-forward period. In some circumstances, such as when the evaluation indicates a low risk that the controls are no longer effective during the roll-forward period, inquiry alone might be sufficient as a roll-forward procedure.21/

20/ Paragraphs 55 and 56 of AS No. 5.

21/ See paragraph 56 of AS No. 5.
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Testing System-Generated Data or Reports That Support Important Controls

A company's use of information technology ("IT") affects the fundamental manner in which transactions are initiated, recorded, processed, and reported.22/ Further, IT poses risks to a company's internal control, including reliance on computer applications that are inaccurately processing data, processing inaccurate data, or both.23/

In an audit of internal control, at least some of the controls that might be selected for testing might use data or reports produced by the company's IT system. In such situations, the effectiveness of those controls depends, in part, on the completeness and accuracy of the system-generated information. Accordingly, when auditors select such controls for testing, they also need to test either the controls over the system-generated data and reports or the completeness and accuracy of the data.

Inspections staff have observed instances in which firms selected controls for testing but failed to sufficiently test controls over the completeness and accuracy of system-generated data or reports used in the operation of controls. For example, some firms failed to: (1) test IT general controls ("ITGCs") that are important to the effective operation of the applications that generated the data or reports, (2) test the logic of the queries (or parameters) used to extract data from the IT applications used in the reports, or (3) address control deficiencies that were identified with respect to the ITGCs over either the applications that process the data used in the reports or the applications that generated the reports.

Similarly, Inspections staff have observed situations in audits of financial statements in which the firm used system-generated data to perform substantive analytical procedures but did not to perform audit procedures to test either the completeness and accuracy of the system-generated data or the controls over the completeness and accuracy of that data.

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22/ For audits that were subject to inspections in 2010, see paragraph .17 of AU sec. 319, Consideration of Internal Control in a Financial Statement Audit ("AU sec. 319"). For audits of fiscal years beginning on or after December 15, 2010, see Auditing Standard No. 12, Identifying and Assessing Risks of Material Misstatement ("AS No. 12"), paragraph B1.

23/ For audits that were subject to inspections in 2010, see paragraph .19 of AU sec. 319. For audits of fiscal years beginning on or after December 15, 2010, see paragraph B4 of AS No. 12.
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Using the Work of Others

Inspections staff have identified situations in which firms used the work of others, most often internal audit, who performed tests of controls without establishing a sufficient basis for using that work.

AS No. 5 provides that the auditor may use the work of others that provides evidence about the effectiveness of internal control, but the extent to which the auditor should do so depends on the risk associated with the controls being tested, as well as on the competence and objectivity of the individuals performing the work.\(^{24/}\)

In some instances, the extent to which firms used the work of internal audit in higher risk areas involving significant judgment, such as aspects of revenue and the valuation of complex, hard-to-value investment securities, was inappropriate.

In some instances, firms failed to evaluate the design of internal audit's control testing procedures, including the scoping and the identification of important controls. For example, the engagement team used the work of internal audit to test controls over revenue. The engagement team did not re-perform any of the tests of controls performed by the issuer's internal audit group. In addition, there was no documentation of the nature, timing, and extent of the control testing performed by internal audit.

Evaluating the Effects of Identified Control Deficiencies

The auditor must evaluate the severity of each control deficiency that comes to his or her attention to determine whether the deficiencies, individually or in combination, are material weaknesses as of the date of management's assessment,\(^{25/}\) which is generally the date of the company's annual financial statements. The severity of a deficiency depends on: (1) whether there is a reasonable possibility that the company's controls will fail to prevent or detect a misstatement of an account balance or disclosure and (2) the magnitude of the potential misstatement resulting from the deficiency or deficiencies.\(^{26/}\) Additionally, if during the audit of internal control, the auditor identifies a deficiency, he or she should determine the effect of the deficiency, if any, on the nature, 

\(^{24/}\) See Paragraphs 17 – 19 of AS No. 5.

\(^{25/}\) Paragraph 62 of AS No. 5.

\(^{26/}\) Paragraph 63 of AS No. 5.
timming, and extent of substantive procedures to be performed to reduce audit risk in the audit of the financial statements to an appropriately low level.27/

Inspections staff noted instances in which firms failed to sufficiently evaluate the severity of the control deficiencies that they had identified. Specifically, in some cases firms did not:

- Sufficiently evaluate whether audit adjustments and exceptions identified from substantive procedures were indicators of the existence of control deficiencies. For example, the firm’s valuation specialist concluded that the recorded fair values of certain of the issuer's assets were outside a reasonable range due to the use of unsupported assumptions. This resulted in a significant audit adjustment that the issuer recorded. The issuer's controls had failed to identify that the valuation assumptions were not supported; however, the engagement team failed to identify and evaluate this control deficiency. Specifically, the engagement team failed to evaluate whether the audit adjustment was material to the financial statements and if the control deficiency was indicative of a significant deficiency or a material weakness;

- Consider all of the relevant risk factors that should have affected the determination of whether there was a reasonable possibility that a deficiency, or a combination of deficiencies, could result in a misstatement of an account balance or disclosure 28/ For example, a significant deficiency was identified over the issuer's process for valuing hard-to-value financial instruments. The engagement team failed to appropriately evaluate the severity of the deficiency as it did not evaluate all of the risk factors that affected whether there was a reasonable possibility that the deficiency could result in a material misstatement, including the nature of the accounts affected by the deficiency, the subjectivity, complexity, or extent of judgment required to determine the valuations. In addition, the engagement team did not consider the magnitude of audit adjustments related to this control deficiency in determining whether the control deficiency was a material weakness rather than a significant deficiency;

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27/ Paragraph B6 of AS No. 5.

28/ See Paragraph 65 of AS No. 5 (noting list of risk factors that should affect the determination).
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- Consider all of the relevant factors that should have affected the determination of the magnitude of potential misstatements. For example, the engagement team did not sufficiently evaluate the severity of certain control deficiencies identified through tests of controls over revenue. Specifically, as part of the issuer’s evaluation of control deficiencies, management calculated the magnitude of the potential misstatement resulting from the control deficiencies using certain significant assumptions. The engagement team used the issuer's evaluation but did not assess the reasonableness of the issuer's assumptions; and

- Sufficiently evaluate compensating controls, including identifying and testing those controls and determining whether they operated at a level of precision that would prevent or detect a misstatement that could be material. For example, the engagement team concluded that certain compensating controls partially mitigated the effect of the deficiencies and that the control deficiencies therefore constituted a significant deficiency rather than a material weakness. The engagement team, however, failed to obtain sufficient appropriate audit evidence to support its conclusion that the compensating controls operated at a level of precision that would prevent or detect a misstatement that could be material. Specifically, the engagement team concluded that one of the compensating controls operated effectively even though the control failed to identify an error that was in excess of the engagement team's established materiality.

Finally, Inspections staff have observed instances in which firms failed to determine appropriately the effect that identified control deficiencies had on the nature, timing, and extent of their substantive procedures to reduce audit risk in the audit of the financial statements to an appropriately low level.

Firms should assess control deficiencies with an appropriate level of professional skepticism and objectively weigh the available audit evidence to determine whether a control deficiency or a combination of control deficiencies represent a material weakness. In addition, the objective assessment of the available audit evidence should determine the nature, timing, and extent of additional audit procedures that should be performed.

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29/ See Paragraph 66 of AS No. 5 (noting list of factors that should affect the determination).
Part II: Potential Root Causes of Internal Control Inspection Findings

During the inspection process, Inspections staff performed procedures to identify potential root causes of the auditing deficiencies that were identified. Such procedures included, among other things, analysis of inspection findings, discussions with engagement teams and firms’ leadership, and reviews of firms’ audit methodologies and guidance. As a result of these procedures, Inspections staff identified several factors outlined below that may have contributed to the deficiencies in the auditing of internal control. The root causes discussed below may, in some cases, be interrelated.

I. Improper Application of the Top-Down Approach

In order to comply with the provisions of AS No. 5, the auditor should use a "top-down" approach to the audit of internal control to select the controls to test. This approach begins with understanding the overall risks to internal control, including the risk of fraud. The auditor then focuses on identifying entity-level controls, and then moves to identifying significant accounts and disclosures and their relevant assertions, understanding likely sources of misstatement, and selecting controls to test.30/

Risk assessment underlies the entire AS No. 5 audit process, including the determination of significant accounts and disclosures and relevant assertions, the selection of controls to test, and the determination of the audit evidence necessary for a given control.31/ The auditor should focus more of his or her attention on the areas of highest risk.32/

In some instances, it appears firms, in implementing a top-down approach, placed undue emphasis on testing management review controls and other detective controls without considering whether they adequately addressed the assessed risks of material misstatement of the significant account or disclosure. In some instances, Inspections staff observed that firms failed to test controls for all the significant accounts and disclosures and their relevant assertions. In other instances, it appeared to the Inspections staff that firms did not sufficiently understand the likely sources of potential misstatements related to significant accounts or disclosures as part of selecting controls to test.

30/ See paragraph 21 of AS No. 5.
31/ Paragraph 10 of AS No. 5.
32/ Paragraph 11 of AS No. 5.
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AS No. 5 provides that, to further understand the likely sources of potential misstatements, and as a part of selecting the controls to test, the auditor should achieve the following objectives, among others:

- Understand the flow of transactions related to the relevant assertions, including how these transactions are initiated, authorized, processed, and recorded;

- Verify that the auditor has identified the points within the company's processes at which a misstatement – including a misstatement due to fraud – could arise that, individually or in combination with other misstatements, would be material; and

- Identify the controls that management has implemented to address these potential misstatements.  

While auditors are not required to perform walkthroughs, AS No. 5 states that performing walkthroughs will frequently be the most effective way of achieving the above objectives. Inspections staff have observed instances in which firms appear to have significantly reduced the procedures performed in comparison to prior years to obtain an understanding of the flow of transactions and the risks of misstatement and to determine which controls to test. In some situations, the firms' procedures have been limited to:

- Using inquiry and observation to confirm that there have been no significant changes to the processes;

- Obtaining their understanding through controls testing and substantive procedures;

- Reviewing walkthroughs that were performed by the company's internal auditor who provided direct assistance to the firm; or

- Relying on their knowledge and experience obtained from prior years' audits.

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33/ Paragraph 34 of AS No. 5.

34/ Paragraph 37 of AS No. 5.
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These procedures frequently were not adequate to verify the auditor's understanding of the risks in the company's processes and to identify and select for testing controls sufficient to address the risk of misstatement for the relevant assertions. Firms should incorporate knowledge obtained during past audits performed of an issuer's internal control into the decision-making process for determining the nature, timing, and extent of testing necessary. They also, however, should take into account the risks associated with a control in subsequent years' audits. Factors that affect the risk associated with a control in subsequent years' audits include, among others:

- The nature, timing, and extent of procedures performed in previous audits;
- The results of the previous years' testing of the control;
- Whether there have been changes in the control or the process in which it operates since the previous audit;
- The inherent risk associated with the related account(s) and assertions;
- The competence of the personnel who perform the control or monitor its performance and whether there have been changes in key personnel who perform the control or monitor its performance;
- Whether the control relies on performance by an individual or is automated; and
- The complexity of the control and the significance of the judgments that must be made in connection with its operation.

After taking into account these risk factors, the additional information available in subsequent years' audits might permit the auditor to assess the risk as lower than in the initial year. This in turn, might permit the auditor to reduce testing in subsequent years.

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35/ Paragraph 57 of AS No. 5.
36/ Paragraphs 47 and 58 of AS No. 5.
37/ Paragraph 59 of AS No. 5.
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In a related matter, Inspections staff have observed instances in which firms have not evaluated the factors set forth in AS No. 5 to determine the evidence needed to update the results of testing from the interim date to year end. AS No. 5 provides that when the auditor reports on the effectiveness of controls as of a specific date and obtains evidence about the operating effectiveness of controls at an interim date, he or she should determine what additional evidence concerning the operation of the controls for the remaining period is necessary.\(^{38/}\) The additional evidence that is necessary depends on the following factors:

- The specific control tested prior to the as-of date, including the risks associated with the control and the nature of the control, and the results of those tests;
- The sufficiency of the evidence of effectiveness obtained at an interim date;
- The length of the remaining period; and
- The possibility that there have been any significant changes in internal control subsequent to the interim date.\(^{39/}\)

It appears that some firms, at least in certain instances, have placed undue emphasis on performing control testing through the first two quarters of an issuer's year (interim testing), and updating their testing of the operating effectiveness of controls through the remainder of the period under audit based on inquiries of management, including inquiries of management who may not be directly responsible for the operation of the controls, without regard to factors set forth in AS No. 5.

The improper application of the top-down approach may be caused, in part, by the other root causes discussed below and a reduced focus by firms on the requirements in AS No. 5.

\(^{38/}\) Paragraph 55 of AS No. 5.

\(^{39/}\) Paragraph 56 of AS No. 5.
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II. Decreases in Audit Firm Staffing Through Attrition or Other Reductions, and Related Workload Pressures

From 2007 through 2010, some firms experienced significant decreases in staffing at the audit senior and less experienced staff levels. Some of these decreases were attributed to the downturn in the economy coupled with normal attrition. As a result of decreases in staffing, the workload of the more experienced engagement team members (partners, senior managers, and managers), as well as that of the remaining staff became strained. The decline in staffing may have contributed to the deficiencies identified in testing internal controls.

In addition, to some extent, firms sought to replace staff who had left by hiring new audit staff and experienced seniors, who may not have been familiar with firm methodologies. Additionally, recently hired audit staff and seniors may have lacked sufficient knowledge of the risks associated with the issuer's processes, which also may have contributed to these deficiencies.

As a result of their increased workloads, experienced engagement team members may not have had an appropriate level of involvement in the engagement teams' work regarding assessing risks and selecting and testing controls that addressed those risks.

III. Insufficient Firm Training and Guidance

The increase in the number of identified auditing deficiencies may be attributed, in part, to a reduced focus on AS No. 5 in the firms' training programs. It appears that the amount of time allocated to AS No. 5 in firms' training programs has decreased since the period following initial adoption of AS No. 5. The reduced AS No. 5 training and the increased staff turnover discussed above might have resulted in substantial portions of audits of internal control being performed by staff with insufficient knowledge of AS No. 5.

In addition, it appears to the Inspections staff that in some instances the internal training and guidance that firms have provided to their engagement teams for specific elements of AS No. 5 may have been insufficient. For example, some firms' guidance may not have devoted a sufficient amount of attention to the nature, timing and extent of testing for entity-level controls and management review controls. In other instances, firms' internal training and guidance did not provide direction on, or examples of, how to evaluate the level of precision at which the controls operated. Firms' training and guidance should consider the complexity of these controls and the significance of the judgments made by individuals performing these controls. For example:
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- What information did the individual use to perform the control?
- Was the management review control dependent on the effectiveness of other controls?
- Did the individual performing the control consider all relevant information that was available or did he or she only consider information that supported the assertions being reviewed?

Also, some firms may need to improve their internal training and guidance regarding incorporating knowledge obtained during past audits in determining the nature, timing, and extent of testing necessary in subsequent years. AS No. 5 provides that tests of controls may be reduced in a subsequent year when the auditor, after taking into account the factors set forth in AS No. 5 regarding the risk associated with a control, concludes that the risk is lower in the subsequent year. Inspections staff have observed instances in which firms inappropriately reduced the extent of testing of relevant controls solely on the basis that the relevant control had been tested in prior years. Some firms also did not consider whether there had been changes to the process or in the people within the process that performed the control. Additionally, one firm's guidance in this area did not require the engagement team to evaluate whether the risk associated with the controls selected for testing was lower than in prior years in order to determine whether it was appropriate to reduce the extent of its testing of the operating effectiveness of those controls in the current year when those controls were tested two years ago.

As discussed previously, in some instances, it appeared that firms failed to sufficiently understand the likely sources of potential misstatements related to significant accounts or disclosures, which in turn resulted in failures to identify and test controls that address the risks of material misstatements of those accounts and disclosures. Internal guidance that some firms provided in this area appeared to place undue emphasis on the extent of the firm's documentation regarding the flow of transactions and related controls rather than obtaining a sufficient understanding of risks or the likely sources of potential misstatements. For example, some firms' internal guidance appeared to focus on opportunities for engagement teams to challenge the efficiency and effectiveness of its walkthrough procedures and related documentation, including reminding engagement teams that there is no requirement to repeat documentation related to the flow of transactions and disclosures when documenting walkthrough procedures. This guidance may, in some cases, have contributed to engagement

40/ See Paragraph 59 of AS No. 5.
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teams failing to take an appropriate approach to verifying their understanding of the risks associated with a company's processes and testing controls that address those risks.

IV. Ineffective Communication with Firm's Information System Specialists on the Engagement Team

In some instances, where firms selected IT-dependent controls for testing but failed to sufficiently test controls over the completeness and accuracy of system-generated data or reports used by the IT-dependent controls, there may have been a lack of communication or coordination between the engagement staff focused on the financial statement audit and the firm's information system specialists in planning engagements. As a result, Inspections staff noted undue reliance on IT-dependent controls or system generated information in some situations in which the firms' information system specialists assisted in the evaluation of design and operating effectiveness of information technology general controls or performed certain procedures on system generated information. The engagement team members focused on the financial statement audit did not evaluate whether the procedures performed by the firm's information system specialists provided sufficient evidence to support the completeness and accuracy of the reports being relied upon.

Firms should perform their own root cause analyses for the deficiencies identified in this report and take appropriate corrective action. Firms need to monitor and evaluate whether their corrective actions adequately address the deficiencies identified in this report.

Part III: Looking Forward

The 2011 inspections, which generally involve reviews of integrated audits for fiscal years ending in 2010, identified deficiencies similar to those identified in this report, and the number and significance of these deficiencies have increased. In 2011 inspections of the firms, the percentage of integrated audits that Inspections staff identified as having insufficiently supported opinions on the effectiveness of internal control climbed to approximately 22 percent (although not all reports on those inspections have been finalized). Of the engagements identified as having such deficiencies, approximately 82 percent were identified by Inspections staff as also having insufficiently supported opinions on the financial statement audit.

In addition, in another 20 percent of the integrated audits that were inspected, Inspections staff identified deficiencies in the auditing of internal control that did not involve findings of such significance that they indicated a failure to support the firm's internal control opinion. These deficiencies, however, did evidence deficiencies in some
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firms' systems of quality control of such significance that in the Board's view they require remediation. Inspections staff will continue to evaluate the procedures the firms performed in the areas where significant deficiencies in the audit of internal control were identified during the PCAOB's 2010 inspections.

In addition, Inspections staff will continue to evaluate whether the potential causes of the deficiencies in the audit of internal control identified in this report, as well as any other root causes, are contributing to the increase in internal control deficiencies.

Finally, Inspections staff will continue to have ongoing discussions with firms' leadership to obtain further understanding of the underlying root causes of the increases in the number of deficiencies in internal control audits. Inspections staff will then evaluate the steps firms take to remediate these deficiencies and to address the underlying root causes.
Appendix A

PCAOB Inspections of Public Company Auditors

Under the Sarbanes-Oxley Act of 2002 ("the Act"), public accounting firms that provide audit reports for "issuers" (essentially, public companies whose securities trade in U.S. markets) must be registered with the PCAOB. The Act charges the PCAOB to conduct regular inspections of such firms, whether located in the U.S. or elsewhere, for the purpose of assessing compliance with certain laws, rules, and professional standards in connection with a firm's audit work for issuers.

As of November 28, 2012, there are approximately 741 registered firms that provide audit reports for issuers, although the precise number fluctuates as some firms begin for the first time to issue audit reports for issuers and other firms cease doing so. In general, the PCAOB inspects each firm in this category either annually or triennially, depending upon whether the firm provides audit reports for more than 100 issuers (annual inspection) or for 100 or fewer issuers (triennial inspection). At any time, the PCAOB might also inspect any other registered firm that does not issue audit reports but does perform work used by another firm in the audit of an issuer. The PCAOB has a practice of inspecting, in each year, some firms in that category.

Board inspections are designed to identify and address weaknesses and deficiencies related to how a firm conducts audits. To achieve that goal, Board inspections include evaluations of the design and operating effectiveness of a firm's quality control policies and of the firm's performance in selected audit engagements.

Audits are selected for review based on various risk factors, including (1) the nature of the issuer or its industry, (2) audit issues likely to be encountered, (3) market capitalization of the issuer, (4) whether the issuer has significant operations in certain emerging markets, (5) considerations related to the particular audit firm, practice office, or partner, including prior inspection results, and (6) any other relevant information that has come to the Board's attention. Usually, only higher-risk portions of an audit are reviewed in an inspection. It is not the purpose of an inspection to review all of a firm's audits or to identify every respect in which a reviewed audit may be deficient.

The Board issues a report on every firm inspection and makes a portion of the report publicly available at http://pcaobus.org/Inspections/Reports/Pages/default.aspx. The Board has elsewhere described in detail its approach to making inspection-related information publicly available consistent with statutory restrictions. See PCAOB Release No. 104-2004-001.
those criticisms, occurs out of public view, unless the firm fails to make progress to the Board's satisfaction in addressing those criticisms.\textsuperscript{2} In addition, the Board generally does not disclose otherwise nonpublic information, learned through inspections, about the firm or its clients.

The Board also issues general public reports on inspection-related issues from time to time. These reports do not address issues in terms of particular firms but, rather, discuss observations from the inspection program in a way intended to be informative and helpful for auditors. These reports also give investors, audit committees, and others the benefit of certain information and analysis concerning the general state of auditing, certain highlighted audit issues, or the inspection program. Previous general reports, as well as other inspection-related documents such as those cited in the footnotes to this Appendix, are available on the Board's web site at http://pcaobus.org/Inspections/Pages/PublicReports.aspx/.

Observations from the inspection program play an important role in informing various other PCAOB activities. The Board's Office of the Chief Auditor takes inspection results into account in considering whether to recommend that the Board amend the standards that auditors must follow in connection with issuer audits. Inspection results also inform the content of PCAOB Staff Audit Practice Alerts, which highlight new, emerging, or otherwise noteworthy circumstances that may affect how auditors conduct audits. Staff audit practice alerts are available at http://pcaobus.org/Standards/Pages/Guidance.aspx. The Board also regularly presents forums on auditing in the small business environment, at which inspection issues are discussed in an interactive format to help auditors of smaller public companies benefit from the PCAOB's assessment of audit problems identified through inspections. Information about these forums, which are presented at various locations, is available at http://pcaobus.org/Featured/Pages/SmallBusinessForums.aspx.

In some cases, observations from Board inspections become the subject of an informal inquiry or a formal investigation by the Board's Division of Enforcement and Investigations. These inquiries and investigations can result in the institution of formal disciplinary proceedings and the imposition of disciplinary sanctions, which can include revoking a firm's PCAOB registration and barring an individual from association with a registered firm. In the case of most deficiencies identified by Inspections staff, however, the Board seeks to encourage and facilitate auditors' improvement through the

\textsuperscript{2}/ For additional information on this point, See The Process for Board Determinations Regarding Firms' Efforts to Address Quality Control Criticisms in Inspection Reports, PCAOB Release No. 104-2006-077 (March 21, 2006).
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inspection dialogue, including the quality control remediation process, rather than by invoking formal disciplinary authority.