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Office of the Secretary  
Public Company Accounting Oversight Board  
1666 K Street NW  
Washington, D.C. 20006-2803

**Re: Proposed Amendments Related to Aspects of Designing and Performing Audit Procedures that Involve Technology-Assisted Analysis of Information in Electronic Form**

Dear Office of the Secretary:

RSM US LLP (RSM, “we”) values the opportunity to offer our comments on the Public Company Accounting Oversight Board’s (PCAOB, Board) *Proposed Amendments Related to Aspects of Designing and Performing Audit Procedures that Involve Technology-Assisted Analysis of Information in Electronic Form* (the proposal, the release). RSM is a registered public accounting firm serving middle-market issuers, brokers, and dealers.

**Overall Comments on the Proposal**

We support the Board’s strategic goal to modernize the auditing standards, and we believe this proposed standard appropriately works towards that goal. Technology-assisted analysis is an important aspect of financial statement audits and will continue to gain more significance as technology evolves.

We are supportive of several of the proposed amendments. We believe they add clarity and modernize the standards to be aligned with current and anticipated future practice. For example, we believe current practice is aligned with the requirements regarding the level of disaggregation or detail of information, and we believe the clarified distinction between tests of details and analytical procedures is beneficial.

We believe that amendments to other topics addressed in the proposal (such as the selection of specific items for testing, the auditor’s responsibilities when using audit evidence from an audit procedure to achieve more than one purpose, and testing the reliability of information used as audit evidence) are warranted, but some of the amendments in the proposal on these topics remain unclear, or in some cases could cause a significant undesirable change to current practice.

We believe principles-based and nimble auditing standards give auditors the tools they need to perform the most effective and efficient audits, regardless of the size of the firm or complexity of the issuer. For this reason, we acknowledge and appreciate that the proposal does not require the use of technology-assisted analysis. We strongly support this position, suggest explicitly stating this in the standards and emphasize the importance of the standard being enforced as such. For the same reason, we have concerns related to the proposal that appears to require testing internal controls over the reliability of external information maintained by the company in electronic form that is used as audit evidence. We believe this is too prescriptive and inappropriate for reasons we describe in further detail in our response to question 9.

To complement principles-based auditing standards and achieve the highest level of audit quality, we believe relevant, practical examples and best practices provide valuable implementation support, and we therefore request the Board provide such examples in the adopting release and staff guidance.

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We provide further detail on these areas, as well as other comments, in our responses to certain of the Board's specific questions set out below. In certain areas, we propose specific revisions to the proposed standards. Language recommended for deletion is ~~struck through~~. Language recommended for addition is underlined.

### Comments on Specific Questions Posed by the Board

1. Does the description of auditors' use of technology-assisted analysis in designing and performing audit procedures accurately depict the current audit practice? If not, what clarifications should be made? Are there other aspects of auditors' use of technology-assisted analysis that we should consider?

The description of current audit practice in the proposal<sup>1</sup> is generally accurate from our perspective. Information in electronic form and technology-based tools are becoming more widely available. Our engagement teams use technology-assisted analysis primarily for identifying and assessing risks of material misstatement but are expanding its use to include responding to risks of material misstatement.

4. Are the proposed amendments that clarify differences between tests of details and analytical procedures clear and appropriate? If not, what changes should be made to them?

We support the undertaking to clarify the differences between tests of details and analytical procedures. The proposed amendments to AS 1105.13 are clear and appropriate.

Further, we believe an important distinction between analytical procedures and tests of details is that analytical procedures involve developing expectations. This is explicitly stated in AS 2110.48 and AS 2305.05. While AS 1105.21 alludes to this, we believe adding it as an explicit statement in this paragraph would be beneficial and further clarify the distinction between analytical procedures and tests of details. Our proposed amendments to AS 1105.21 to incorporate this distinction and other clarifications are as follows:

.21 Analytical procedures consist of:

- a. developing expectations about plausible relationships among the data to be used in the procedure<sup>11</sup>;
- b. evaluating ~~evaluations of~~ financial information in comparison to expectations; and ~~made by an analysis of plausible relationships among both financial and nonfinancial data that can be external or company-produced.~~ Analytical procedures also encompass the
- c. investigating ~~investigation of~~ significant differences from ~~expectations-expected amounts.~~

Unlike tests of details, analytical procedures generally do not involve evaluating individual items included in an account or disclosure, unless those items are part of the auditor's investigation of significant differences from expected amounts.<sup>4412</sup>

<sup>11</sup> Data to be used in analytical procedures may consist of both financial and nonfinancial data and can be company-produced or from sources external to the company.

<sup>4412</sup> Paragraphs .46-.48 of AS 2110, establish requirements regarding performing analytical procedures as risk assessment procedures. AS 2305, *Substantive Analytical Procedures*, establishes requirements regarding performing analytical procedures as substantive procedures.

Paragraphs .05-.09 of AS 2810, *Evaluating Audit Results*, establish requirements regarding performing analytical procedures in the overall review of financial statements.

Additionally, we recommend amending footnote 9 of AS 2301, *The Auditor's Responses to the Risks of Material Misstatement*, to refer to AS 1105.13 and adding the same footnote to AS 2301.36.

5. Would the proposed amendment that states that the relevance of audit evidence also depends on the level of disaggregation or detail of information necessary to achieve the objective of the audit procedure improve the auditor's evaluation of the relevance of audit evidence? If not, what changes should be made?

We do not expect the proposed amendments to AS 1105.07 to affect current practice regarding the auditor's evaluation of the relevance of audit evidence because the level of disaggregation or detail of information is generally already considered by auditors. We believe the proposed amendments to AS 1105.07 are generally clear and appropriate as written.

We find the example regarding testing the valuation assertion of residential loans to be beneficial.<sup>2</sup> We encourage the Board to consider adding this example as a note in AS 1105.07.

6. Are the proposed requirements that specify the auditor's responsibilities when using audit evidence from an audit procedure to achieve more than one purpose clear and appropriate? If not, what changes should be made to the amendments?

We agree with the intention of the proposed amendments to AS 1105.14 to require audit evidence to achieve the relevant objectives of each procedure for which it is used. However, we have some questions, suggestions and concerns with the amendments as written.

First, the documentation expectations described in the release are not made sufficiently clear in the proposed amendments. The release states, "The purpose, objective, and results of multi-purpose procedures should be clearly documented." Since "purpose" and "objective" are listed separately here, it is unclear whether an "objective" of an audit procedure is separate and different from the "purpose" of an audit procedure. Additionally, it is unclear whether there are any incremental documentation expectations in comparison to current practice. We believe current practice reflects the Board's intentions of these amendments, and it would be beneficial for auditors to understand whether this is true.

Second, we recommend clarifying the proposed amendment as follows:

.14 Paragraphs .15-.21 of this standard describe specific audit procedures. The purpose of an audit procedure determines whether it is a risk assessment procedure, test of controls, or substantive procedure. If the auditor uses audit evidence from an audit procedure for more than one purpose, the auditor should design and perform each ~~the~~ procedure to achieve each of the relevant objectives.<sup>7B</sup>

7. Would the proposed amendments, that specify considerations for the auditor's investigation of items that meet criteria established by the auditor when designing or performing substantive procedures, improve the identification and assessment of the risks of material misstatement and the design and implementation of appropriate responses to the assessed risks?

We have several questions about proposed AS 2301.37A and therefore cannot speak as to whether it would improve the identification and assessment of risks of material misstatement or the design and

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<sup>2</sup> Page 17 of the proposal

implementation of appropriate responses to assessed risks. Overall, we believe the selection of specific items is an area where additional guidance is warranted, but we do not believe AS 2301.37A is sufficient, clear, or in the appropriate place in the standards. We describe our questions and concerns regarding proposed AS 2301.37A below.

First, the phrase “When the auditor establishes and uses criteria to identify items for further investigation” is not sufficiently clear, even with consideration of footnote 17A. This language is not used elsewhere in the standard, so it is unclear to what this is referring. Section III.C of the release indicates this is referring to selecting specific items as prescribed by AS 1105.25-.27. If that is the Board’s intention, we suggest revising the proposed amendment to clarify this by using the same terminology. Additionally, “further investigation” is only used twice in all PCAOB Auditing Standards.<sup>3</sup> Those instances do not relate to selecting specific items, and therefore the use of this terminology increases the confusion. Without the context of the release, this could be interpreted as a) further investigating all items in a sample selection, b) further investigating certain items in a sample selection for which the auditor deemed further investigation may be necessary or c) further investigating findings from analytical procedures.

Second, regarding the items identified as meeting criteria established by the auditor, it is unclear whether the auditor should test 100% of the items or if the auditor may select specific items or use a sampling approach to test less than 100% of the items under appropriate circumstances. For example, an auditor may use technology-assisted analysis to analyze 100% of a population and “it is possible that the analysis may return dozens or even hundreds of items within the population that meet one or more criteria established by the auditor.”<sup>4</sup> We refer to the returned items as outliers. Taking into consideration the assessment of risk, if the auditor determines that all the outliers have similar characteristics such that audit sampling can be expected to be representative of that population of outliers, and the results can be projected to the population of outliers, we believe sampling the outliers could be an appropriate approach to obtain sufficient appropriate audit evidence. Similarly, the example regarding performing substantive procedures for raw material purchase transactions implies it would be permitted to select specific items for testing where the risk of material misstatement has been assessed as lower.<sup>5</sup> We request additional guidance regarding whether the Board agrees that testing less than 100% of the outliers would be permitted under certain circumstances. If the Board agrees, we request that position and the relevant considerations to be clarified and formalized in the standards. Additionally, we request that the raw material purchase transactions example be included in the proposed standards or, at minimum, in the adopting release.

Third, if the analysis returns no outliers, there is not sufficient guidance on whether that may be considered sufficient appropriate audit evidence under certain circumstances or whether further consideration would always be necessary. We believe there are situations in which further consideration would be necessary, as well as situations in which the lack of outliers would provide sufficient appropriate audit evidence. We request additional guidance as to whether the Board agrees and the reasons for agreement or disagreement. If the Board agrees, we request that to be clarified and formalized in the standards.

Fourth, there are instances where technology-assisted analysis may be modified after the original analysis is completed. The extant and proposed standards lack sufficient guidance for consideration in these instances.

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<sup>3</sup> AS 2305, *Substantive Analytical Procedures*, and AS 3110, *Dating of the Independent Auditor's Report*

<sup>4</sup> Page 21 of the proposal

<sup>5</sup> Page 22 of the proposal

Fifth, the four bullets in proposed AS 2301.37A are redundant with other PCAOB auditing standards. Specifically, bullets a., b. and d. are addressed by AS 2110.74. Additionally, they are addressed by AS 2301.46, AS 2101.15 and AS 1215.12.b, respectively. Bullet c is addressed by AS 2810 and AS 2301.34. It is also more specifically addressed by AS 2315.27 for sampling in a test of details and AS 2305.21 for substantive analytical procedures. We believe adding these four considerations to this proposed paragraph creates confusion. In that regard:

- As described above, proposed AS 2301.37A as currently written can be interpreted to be inclusive of audit sampling and substantive analytical procedures. If that is the case, it is unclear whether the Board expects the auditor to explicitly document each of these four considerations for every item selected in an audit sample or for which items in substantive analytical procedures.
- If the Board's intention is for proposed AS 2301.37A to be specific to selecting specific items for testing, it calls into question whether there are expected differences in the application of these four considerations when the auditor selects specific items versus applying a different procedure, such as sampling used in a test of details or substantive analytical procedures. If there are intended differences in the application, that should be made clear in the standards and the release. If there are not intended differences in the application, we recommend removing these bullets and referring to other extant standards, either through a note or a footnote, where these considerations are addressed.

Lastly, if the Board seeks to improve the identification and assessment of risks of material misstatement, as suggested in the question, we recommend amending AS 2110 with such sought-after improvements.

8. What other factors, if any, should the auditor consider when investigating items that meet criteria established by the auditor when designing or performing substantive procedures?

Please see our response to question 7 above.

9. Are the proposed amendments that specify requirements for the auditor to perform procedures to evaluate the reliability of external information maintained by the company in electronic form that the auditor uses as audit evidence clear and appropriate? If not, what changes should be made to the amendments?

We believe the reliability of information obtained from sources external to the company is an important topic that can be improved upon in the PCAOB auditing standards.<sup>6</sup> Specifically, we believe auditing standards requiring the auditor to evaluate the reliability of external information maintained by the company in electronic form and used as audit evidence are warranted and would enhance audit quality.

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<sup>6</sup> Page 24 of the proposal indicates that the reasoning for these updates is as follows: "Because the information is maintained in the company's information system and can potentially be modified by the company, we believe it important to address in PCAOB standards the reliability of audit evidence that the auditor obtains through using this type of information." We believe it is important to acknowledge that modification of information may be intentional or unintentional. The risks of intentional versus unintentional modification of information are different and may require different types and varying degrees of audit responses. If the auditor has identified a risk of material misstatement due to fraud related to the reliability of information, a heightened awareness, increased professional skepticism and potentially incremental procedures may be necessary. Likewise, if the auditor has not identified a risk of material misstatement due to fraud related to the reliability of information, the auditor would be applying the procedures described in these proposed amendments to determine whether the information is complete and accurate with the assumption that any incompleteness or inaccuracies would be unintentional. This distinction should be considered throughout the proposed amendments discussed in questions 9, 10, and 11.

However, proposed AS 1105.10A does not clearly or appropriately achieve this goal. The proposed amendment is not clear and appropriate for the following reasons:

- **It is unclear whether the combination of proposed footnote 3A in AS 1105.10 and subpart (b) of proposed AS 1105.10A requires the auditor to test controls over the reliability of external information maintained by the company in electronic form that the auditor uses as audit evidence.** Despite subpart (b) stating “or test the company’s procedures,” it remains unclear how the PCAOB would view situations in which the auditor chooses to not test controls.
- **The types of tests of controls the Board expects auditors to perform is unclear.** It would be helpful to have further explanation and additional examples provided in implementation guidance if the amendments are adopted in substantially the same form as written in the proposal.
- **The meaning and practical application of “test the company’s procedures” is unclear.** If controls are not required to be tested and the auditor instead chooses to “test the company’s procedures,” what does this entail? While we acknowledge that controls and processes or procedures have different meanings, we do not understand how “testing the company’s procedures” would practically result in a different type of test in comparison to testing the company’s controls. What other types of procedures could an auditor perform to evaluate the reliability of external information maintained by the company in electronic form? If the Board’s intention is for the auditor to test controls, we recommend clarifying this by removing “or test the company’s procedures...” from the proposal. However, we do not believe that is an appropriate stance; please see our response to question 11 below. Rather, we recommend clarifying “or test the company’s procedures...” within the standard accompanied by further explanation and additional examples provided in implementation guidance.
- **It is unclear whether directly testing the reliability would be allowable.** Regarding information produced by the company, AS 1105.10 allows the auditor to either test controls over the accuracy and completeness of information or test the accuracy and completeness directly (“direct testing”). We strongly believe direct testing should be an allowable approach for evaluating the reliability of external information maintained by the company in electronic form. For example:
  - In the case of purchase orders, we believe confirming with the external party could provide evidence of reliability. Would that satisfy the requirement to “test the company’s procedures”? If this is an acceptable procedure, would the auditor be required to confirm every purchase order for every revenue transaction selected for testing? Or would the auditor be permitted to sample all purchase orders and then, based on the results of the sample tested, determine the external information included in the purchase orders is reliable?
  - In the case of cash receipts, we believe logging directly into the company’s online banking system or observing the company log into their online banking system could provide evidence of reliability. Would that satisfy the requirement to “test the company’s procedures”?
- **If the auditor is unable to achieve the objectives of paragraph .10A, it is unclear how the auditor’s conclusions would be affected.** Would the auditor be precluded from using the information? As noted above, we strongly believe that direct testing should be allowable. If the Board disagrees, we request the Board provide additional guidance on what auditors should do if and when a company lacks sufficient effective controls.
- **For information produced by a service organization, it is unclear how the requirements of footnote 3 of AS 1105.10 and the proposed AS 1105.10A interrelate.**

10. Are the proposed amendments that emphasize the importance of controls over information technology for the reliability of audit evidence clear and appropriate? If not, what changes should be made?

The proposed amendments that emphasize the importance of controls over information technology for the reliability of audit evidence need clarifications as follows:

- We interpret the proposed revisions to AS 1105.08 to mean that effective controls over information simply increases the reliability of that information, but the lack of effective controls over information does not inherently deem the information to be unreliable. The auditor may directly test the reliability of information. If the Board disagrees with this interpretation, it is imperative that further revisions be made or for the Board to clarify its position in the adopting release.
- We believe the proposed revisions to AS 1105.15 are less clear on this matter. Although AS 1105.15 indicates there are “varying degrees of reliability,” the revised paragraph goes on to state “the reliability... *depends*<sup>7</sup> on the effectiveness of the controls over that information.” This statement may be interpreted to mean information cannot be reliable without effective controls. This contradicts our interpretation of AS 1105.08. The Board’s intention is unclear and should be clarified in the standard and adopting release. We believe the lack of effective controls over information does not inherently deem the information to be unreliable, and this is the position we recommend the Board take upon clarifying this amendment.
- Footnote 49 on page 25 of the release is informative. Adding a footnote with similar information in the proposed standard would clarify the meaning of “where applicable.”

11. When the auditor uses information produced by the company and external information maintained by the company in electronic form, should PCAOB standards require internal controls over such information to be tested and determined to be effective for such information to be considered reliable audit evidence?

No, we do not believe PCAOB standards should require testing internal controls in order for information to be considered reliable audit evidence. As stated in the release, “The proposed amendments are principles-based....”<sup>8</sup> We believe requiring internal controls to be tested and determined effective in order for information to be considered reliable would be rules-based, not principles-based. The standards should allow auditors to use professional judgment in determining the appropriate response when evaluating the reliability of information. We considered the following factors in our response:

- **While tests of controls may be an effective option in many circumstances, it is not always the most effective option.** For example, in certain situations, confirming information directly with a third party or vouching information to publicly available information may provide more persuasive evidence than testing controls over the reliability of that information. As described in our response to question 9 above, we strongly believe direct testing should be an allowable approach for evaluating the reliability of external information maintained by the company in electronic form. We have the same opinion for evaluating the reliability of information produced by the company.
- **The absence of effective internal controls does not inherently indicate information is unreliable.** PCAOB standards note that a material weakness in internal control over financial

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<sup>7</sup> Emphasis added

<sup>8</sup> Page 5 of the proposal

reporting may exist even when financial statements are not materially misstated.<sup>9</sup> We believe this same concept can be applied in this context: internal controls over the reliability of information may be deemed ineffective even when the information is in fact complete and accurate. If an auditor can obtain assurance over the reliability of information directly, we believe the auditor should be allowed to use such information.

- **Principles-based standards allow auditors to adapt as necessary to achieve the intended objectives, regardless of company size, experience or sophistication.** For smaller and newer companies not subject to Section 404(b) of the Sarbanes-Oxley Act of 2002, controls over such information may not be formalized in a way that would be sufficient for testing under PCAOB auditing standards; therefore, requiring tests of controls over this information would create burdens and increase costs for these companies. When the auditor can obtain assurance of reliability through direct tests, we believe the benefits of such a requirement would not surpass the increased costs. Further, while complying with such a requirement may be less costly and burdensome for companies subject to Section 404(b), we also believe it is inappropriate to require testing controls over the reliability of information used in substantive testing due to the reasons described above.

12. Are the proposed amendments that update certain terminology in AS 1105 clear and appropriate? If not, what changes should be made?

Please see our proposed amendments to AS 1105.21 in our response to question 4 above regarding the phrase “among both financial and nonfinancial data that can be external or company-produced.” We believe it is beneficial to rephrase this as suggested above to clarify a) it is not expected for every analytical procedure to include both financial and nonfinancial data and b) data can be originally sourced externally and housed internally.

Additionally, please see our response to question 7 above regarding the terminology used in proposed AS 2301.37A.

We have no concerns with updating the other terminology described on page 26 of the release and believe the proposed amendments to be clear and appropriate.

15. Are there additional potential benefits that should be considered?

In addition to the benefits described in the release, auditors may gain a better understanding of management’s data and processes which could lead to better risk assessment.

18. The Board requests comment generally on the potential unintended consequences of the proposal. Are the responses to the potential unintended consequences discussed in the release adequate? Are there additional potential unintended consequences that the Board should consider? If so, what responses should be considered?

In the future, there could be a belief demonstrated through PCAOB inspections that technology-assisted analysis of information in electronic form is the best, and therefore, the only acceptable approach to risk assessment. While technology-assisted analysis may be beneficial, it is not the only acceptable approach, and we believe it is imperative for the standards and enforcement of such standards to give auditors the flexibility to exercise professional judgment to select the most appropriate procedures given the facts and circumstances of each audit. As the proposal is currently written, technology-assisted

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<sup>9</sup> AS 2201.03



analysis is not required to be used in financial statement audits. We commend the Board for this and believe it is important for this to continue to be the case, both as written in the final standard to be adopted as well as in how the standard is enforced in the future. To ensure enforcement aligns with this position, we recommend the Board explicitly state the lack of this requirement in the final standards to be adopted.

22. The Board requests comment generally on the analysis of the impacts of the proposal on EGCs. Are there reasons why the proposal should not apply to audits of EGCs? If so, what changes should be made so that the proposal would be appropriate for audits of EGCs? What impact would the proposal likely have on EGCs, and how would this affect efficiency, competition, and capital formation?

We believe the proposal should apply to emerging growth companies (EGCs).

23. How much time following SEC approval would audit firms need to implement the proposed requirements?

We recommend an effective date of audits of periods ending on or after December 15 at least one year after approval by the SEC, as implementation of amended auditing standards involves updating our methodology, tools and resources; testing them for quality control; releasing them to the audit practice; and developing and delivering training sessions on these changes. Implementation of the proposed amendments to AS 1105 regarding internal controls could also require additional time for issuers to formalize controls over external data and for auditors to test such controls to the extent they are not already formalized or tested.

Many firms who perform audits in accordance with PCAOB standards use purchased audit methodologies and software tools and rely on these updates to implement and train on changes. The PCAOB should consult directly with the methodology providers to understand the timeline needed for them to implement the changes into their tools as well as then distribute and train auditors on the changes. This can inform the PCAOB on the needed timeline for implementation.

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We would be pleased to respond to any questions the PCAOB or its staff may have about our comments. Please direct any questions to Adam Hallemeier, Deputy Chief Auditor, at 619.641.7318, or Sara Lord, Chief Auditor, at 612.376.9572.

Sincerely,

*RSM US LLP*

RSM US LLP