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By email: comments@pcaob.org

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

RE: PCAOB Rulemaking Docket Matter No. 052: PCAOB Release No. 2023-004: 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:

We appreciate the opportunity to comment on the Public Company Accounting Oversight Board's (PCAOB or the Board) Release No. 2023-004, *Proposed Amendments Related to Aspects of Designing and Performing Audit Procedures that Involve Technology-Assisted Analysis of Information in Electronic Form* (the Release). The Proposed Amendments to AS 1105, *Audit Evidence*, and AS 2301, *The Auditor's Responses to the Risks of Material Misstatement* included in the Release are herein referred to as the Proposed Amendments. We acknowledge the considerable effort put into the creation of the Release and the Proposed Amendments and commend the Board for modernizing the standards. However, we believe further clarification is needed in the language of the Proposed Amendments and related Release to enable them to remain principles-based and adaptable to the evolving technology-enabled audit procedures.

The remainder of this letter provides our specific comments on the Proposed Amendments.

Evaluating the sufficiency and appropriateness of audit evidence using technology-assisted analysis

In general, we believe the description of auditors' use of technology-assisted analysis in designing and performing audit procedures accurately depicts some of the current practices. However, even when not considering artificial intelligence, we believe there are and will continue to be more ways to use technologies currently in practice that are not contemplated in the Release. See further discussion in our response to question 1.

The Proposed Amendments could be clearer on how an auditor considers the sufficiency and appropriateness of audit evidence provided through technology-assisted analysis when used to respond to risks. The Proposed Amendments provides further distinction between tests of details (TOD) and substantive analytical procedures (SAP), without acknowledging that there may be elements of both in a technology-assisted analysis. We encourage the Board to focus on flexible and scalable principles based on the nature of the evidence obtained from the use of technology-assisted analysis to enable the standards to remain relevant and adaptable in the face of evolving technology. We provide suggested revisions below that stress the importance of auditor judgment when evaluating the persuasiveness of audit evidence in totality. These suggested principle-based concepts would provide for a more adaptable landscape of the standards, resulting in further longevity of the standards as technology used to execute audit procedures continues to advance.

Specifying auditor responsibilities for evaluating the reliability of certain audit evidence

We agree it is important that auditors perform sufficient procedures to evaluate the reliability of information used as audit evidence. However, when information is used by auditors and not used in the company's internal control over financial reporting, we believe testing the reliability of such information without testing the company's controls may also provide sufficient and appropriate evidence. We are not clear what is meant by "test the company's procedures discussed in subpart (a) of this paragraph" within proposed AS 1105.10A(b). This is the second of two alternatives available for evaluating the reliability of external information obtained from the company, the first of which enables auditors to evaluate reliability of such information by testing controls over the company's procedures to receive, record, maintain, and process external information in the company's information system. How 'test the company's procedures' is intended to differ from testing the company's controls over the company's procedures is not clear. We recommend the Proposed Amendments be revised to clarify the Board's intended auditor performance when following the 'test the company's procedures' alternative to enable auditors to consistently perform procedures aligned with the Board's expectations.

Interdependencies of AS 2305, Substantive Analytical Procedures

We believe the amendments to AS 1105 and AS 2301 as proposed, should be considered in conjunction with AS 2305, *Substantive Analytical Procedures*, as the topics are interrelated. Considering the Proposed Amendments independent from any amendments to AS 2305 could result in a disconnect from AS 1105 and AS 2301 or cause additional confusion related to obtaining sufficient appropriate audit evidence when executing audit procedures using technology-assisted analysis.

Importance of transparency in standard-setting

We support the goal of increasing transparency in the Board's actions, including with respect to projects on the Board's standard setting and research project agendas. The Release states it was informed by the PCAOB staff's research project on Data and Technology. We thank the Board for the prior outreach of the PCAOB staff in understanding our use of technology in the audit and for engaging in meaningful discussions with audit firms and the Center for Audit Quality about challenges auditors face based on the extant standards. Further transparency around where the Board considers future standard-setting to be headed, inclusive of the use of emerging technologies in an audit, would allow stakeholders to engage early and provide timely and evolving perspectives. We encourage the Board to continue with similar outreach on future standard setting projects.

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We appreciate the Board's consideration of our comments and observations in support of revising the auditing standards to enhance audit quality, and we would be pleased to discuss our comments with the Board and its staff at your convenience. We look forward to continuing our engagement with the Board and its staff in support of our shared commitment of investor protection and audit quality.

Sincerely,

KPMG LLP

KPMG LLP



Appendix

Below are responses to select questions in the Release for which we had specific input. For proposed revisions, language to be deleted is ~~struck through~~; language to be added is underlined.

Auditors' use of technology-assisted analysis in designing and performing audit procedures

1. Does the description of the 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 Release indicates auditors primarily use technology-assisted analysis when identifying and assessing risks of material misstatement to identify new risks or to refine the assessment of known risks.¹ Technology-assisted analysis is evolving quickly and has likely accelerated the use of more expansive and advanced technologies beyond the use cases found when research was conducted.

When considering the use of technology-assisted analysis to support substantive procedures, we believe the examples in the Release are narrowly focused on using technology-assisted analysis to identify items for further investigation. As discussed in our response to question 7, this may imply the Board intends auditors to use technology-assisted analysis solely for risk assessment procedures or for selecting specific items when responding to risks rather than to directly respond to risks. We believe technology-assisted analysis may be used to respond to risks.

An example of using technology-assisted analysis to respond to risks is:

An auditor may design a substantive analytical procedure to evaluate whether the characteristics of individual revenue transactions meet expected plausible and predictable relationships. The technology-assisted data analysis may be sufficient to respond to the assessed risk of material misstatement for the transactions exhibiting characteristics consistent with the auditor's expectations.

We therefore request the Board to make clear in the final amendments whether it intends for technology-assisted analysis to only be suitable for risk assessment or whether such analyses may be used to respond to risks of material misstatement.

2. Does the release accurately describe aspects of designing and performing audit procedures involving technology-assisted analysis where improvements to PCAOB standards may be necessary?

As procedures can be performed concurrently, we agree that as technology advances and the use of technology-assisted analysis continues to increase, lines become blurred between the purpose of audit procedures (risk assessment procedures and procedures responsive to identified risks), categories of audit procedures (substantive procedures and test of controls), and the distinction between substantive procedures as a TOD versus a SAP. We believe AS 2305 is clear on defining a SAP based on its nature, including when using technology-assisted analysis. However, we believe there is benefit to further clarifying how to apply some of the concepts within AS 2305, such as AS 2305.17 related to precision, when using technology-assisted analysis.

However, we believe standards should enable the auditor to evaluate the sufficiency of audit evidence obtained rather than limiting the evaluation to distinct phases or classifications of risk assessment, test of controls, and substantive procedures. Specifically, as it relates to the Proposed Amendments to clarify the difference between a TOD and a SAP, we suggest that the standards go further to recognize that technology-assisted analysis in certain circumstances may contain elements of both a TOD and a SAP or

¹ See page 11 of the Release.

may even have the potential to be classified as a third type of substantive procedure altogether that provides sufficient appropriate audit evidence. See also our response to question 4.

3. In addition to the proposed amendments, what other requirements may need to be included in PCAOB standards to address use of technology-assisted analysis in audits?

We believe the amendments to AS 1105 and AS 2301, as proposed, should be considered in conjunction with AS 2305, as the topics are interrelated. Considering the Proposed Amendments independent from any amendments to AS 2305 could result in a disconnect from AS 1105 and AS 2301 or cause additional confusion related to obtaining sufficient appropriate audit evidence when executing audit procedures using technology-assisted analysis. For example, AS 2305.02 focuses on the nature of a procedure when stating “analytical procedures range from simple comparisons to the use of complex models involving many relationships and elements of data. A basic premise underlying the application of analytical procedures is that plausible relationships among data may reasonably be expected to exist and continue in the absence of known conditions to the contrary.” This focus on the nature of the procedure may be interpreted to be inconsistent with the update to AS 1105.13 that states “a test of details involves performing audit procedures with respect to individual items included in an account or disclosure” as this proposed language does not seem to consider the nature of the procedure. Accordingly, combining the efforts to update the auditing standards for implications related to technology-assisted analysis with the Board’s project on SAPs would enable the Board to propose an integrated set of amendments to the standards that provide clarity about how the Board intends auditors to apply the standards when using technology.

Clarifying the differences between tests of details and analytical procedures and emphasizing the importance of appropriate disaggregation or detail of information

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?

If the Board’s intention is to retain the distinction between a TOD and SAP, we are concerned that the Proposed Amendments could be interpreted as inconsistent with AS 2305. The Proposed Amendments to AS 1105.21 states “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.” However, the Proposed Amendments do not provide clarity around when analytical procedures could involve evaluating individual items. The use of ‘generally’ implies the Board believes there are circumstances where SAPs could involve evaluating individual items and we agree. We believe SAPs are procedures involving the development of expectations about plausible relationships irrespective of the level of disaggregation at which the expectations are applied (e.g. account balance vs. transaction level) based on AS 2305, whereas a TOD involves specific types of procedures discussed in AS 1105.15-21, such as inspection and recalculation.

The Release provides an example where an interest expense SAP could “involve the auditor developing an expectation about the amount of the expense based on information available to the auditor about the par value of the financial instruments and the applicable interest rates, comparing the expectation to the company’s recorded interest expense, and investigating significant differences between the company’s recorded amount and the auditor’s expectation.”² This SAP could be performed at an individual item level if expectations are developed for each individual financial instrument.

Since AS 2305 already clearly lays out the nature of audit procedures that fall into this standard, we suggest focusing the Proposed Amendments on updating the definition of a TOD and not adding any additional guidance to the definition of a SAP.

Further, the language in the Proposed Amendment that indicates “a test of details involves performing audit procedures with respect to individual items included in an account or disclosure” could also make it difficult

² See page 16 of the Release.

for auditors to classify technology-assisted analysis performed at a transaction level into one of the types of procedures that are currently defined in AS 1105.15-21 because sophisticated technology-assisted analyses may not involve these traditional testing techniques.

Therefore, we request clarification on when a SAP could involve evaluating individual items included in an account or disclosure, and we suggest amending AS 1105.14 to clarify that the audit procedures described in Paragraphs 15-21 are not comprehensive.

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 agree the relevance of audit evidence depends on the level of disaggregation or detail of information necessary to achieve the objective of the procedure and believe this is already contemplated by auditors in practice.

Specifying the auditor's responsibilities when using audit evidence for more than one purpose

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 believe that the provisions of the Proposed Amendments specifying the auditors' responsibilities when using audit evidence from an audit procedure to achieve more than one purpose are, in most aspects, sufficiently clear and appropriate. However, proposed AS 1105.14 states, "the auditor should design and perform the procedure to achieve each of the relevant objectives." We agree that the procedure should achieve each of the relevant objectives. However, we are concerned that 'should design and perform' presumes that the auditor's initial design of the procedure considers all possible objectives and how the resulting evidence may be used to satisfy those objectives, which may not always be possible. If the auditor does not initially design the procedure to achieve a certain objective, but the evidence provided by the procedure also achieves a separate objective, we believe the auditor should still be able to evaluate the evidence against the unplanned audit objective. We therefore suggest the Board allow auditors to evaluate the evidence obtained against planned and subsequently identified audit objectives. An example is updating proposed AS 1105.14 to state:

.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 procedures. The auditor may design and perform an audit procedure that achieves more than one purpose, in which case if the auditor uses audit evidence from an audit procedure for more than one purpose, the auditor should design and perform the procedure should be sufficient and appropriate to achieve each of the relevant objectives.

Specifying considerations for the auditor's investigation of items when designing or performing substantive audit procedures

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?

Although not necessarily new concepts, we support the Proposed Amendments to specify the auditor's responsibilities as it relates to the considerations in the investigation of identified items. As discussed below, we request clarifications so that auditors sufficiently understand how to apply the guidance to enable consistent application in practice.

First, we recommend providing clarity as it relates to the scope of ‘identified items’ that need further investigation, as there could be different interpretations as to the population of transactions for which the proposed AS 2301.37A considerations apply. The Release states, “Because technology-assisted analysis may enable the auditor to examine all items in a population, 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. PCAOB standards should be modified to address more directly the auditor’s responsibilities in such scenarios”. We believe it is important to acknowledge that when using technology to examine 100% of a population of transactions, there may be different reasons for why items meet criteria that indicate further audit procedures are required (e.g. populations that contradicts the original risk assessment as addressed by AS 2301.46, population that represents a significant unexpected difference from expectations under AS 2305.21, or a sampling deviation under AS 2315.40). We are not clear about whether the Board intends the considerations in AS 2301.37A to apply to each item where the technology-assisted analysis indicates further audit procedures are necessary, or whether the Board agrees with our view that auditor judgment is involved in determining the items that meet the criteria for further investigation under AS 2301.37A. We believe clarifying the Board’s intent directly in the final standard is important. Furthermore, for items returned within the population that meet criteria established by the auditor and that have similar characteristics, we believe it is important to clarify that audit sampling is an allowed approach for testing the identified items, as the results can be applied to the related population of items.

Our second concern relates to how the Release describes the scope of technology-assisted analysis used by auditors for “selecting certain items for testing under PCAOB standards” to obtain audit evidence. The Release states “an auditor may establish criteria and identify and investigate specific items as part of performing a substantive procedure in response to an assessed risk of material misstatement.” This could imply that technology-assisted analysis is used only for purposes of risk assessment or identifying items for specific item testing. However, we believe it is important to clarify that technology-assisted analysis may also be able to provide sufficient appropriate audit evidence to respond to risks identified for items that meet expectations (i.e. achieve the audit objective by meeting the expectation of the procedure).

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?

As described previously, proposed AS 1105.10A(b) allows an auditor the option to test the company’s procedures by which such information is received, recorded, maintained, and processed in the company’s information systems, but what is required by the auditor to ‘test the company’s procedures’ is not clear. Given this option follows the option in proposed AS 1105.10A(b) to test controls over the company’s procedures, we are uncertain as to the Board’s intent with the option to ‘test the company’s procedures’ and how this is different than testing the company’s controls. Additionally, the statement made by Chair Williams that specifies “the proposal would require the auditor to obtain an understanding of the source of the external information and to test the company’s controls over the information”³ suggests that the proposed requirement in AS 1105.10A(b) is not intended to allow for optionality in how auditors evaluate the reliability of external information obtained from the company. This statement, along with the lack of clarity in the Proposed Amendments about what the Board expects an auditor to do if they do not test controls to evaluate reliability of external information will lead to confusion and inconsistent execution in practice. The example provided in the Release discusses “comparing the information the company provided to the auditor to information the company obtained from the external source.” Specifically in this example, how comparing to external source information achieves the requirement to ‘test the company’s procedures’ is not clear.

³ See Statement on Technology-Assisted Analysis Amendments at [Statement on Technology-Assisted Analysis Amendments | PCAOB \(pcaobus.org\)](https://www.pcaobus.org/Statement-on-Technology-Assisted-Analysis-Amendments)

If the intent is to require an auditor to test controls to establish the reliability of external information obtained from the company in all cases, we ask the Board to consider the potential unintended consequences as laid out in our response to question 11. We suggest revising this Proposed Amendment to be consistent with the concepts of evaluating reliability in AS 1105.08 and AS 1105.10, which allows for performing procedures to test the applicable attributes of reliability or testing the company's controls over the applicable attributes of reliability.

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?

We agree with the Board's emphasis on the importance of controls over information technology in establishing reliability; however, there are instances when information can be deemed reliable when controls are not evaluated or are not deemed effective. Reliability depends on the nature and source of the evidence and the circumstances under which it is obtained. For example, a company receives a direct transactional feed from a third-party that is then uploaded into their information systems, and the auditor uses an export of the transactional information as audit evidence. If the original flat file is maintained by the company, it may be appropriate to perform audit procedures over the accuracy and completeness of the information through comparison to the original flat file without having tested controls over the conversion of the flat file data into the company's system.

Proposed Amendments to AS 1105.15 stating reliability "depends on the effectiveness of the controls," could indicate the requirement to test controls over all information used in the audit procedure, and if controls were found to be ineffective, the information could not be determined to be reliable. This appears to conflict with AS 1105.10 which allows auditors to directly test the information produced by the company for reliability. We believe that updates to AS 1105.15 should be consistent with those made in AS 1105.08, and as such we recommend the following updates:

.15 Inspection involves examining information, whether internal or external, in paper form, electronic form, or other media, or physically examining an asset. Inspection of information provides audit evidence of varying degrees of reliability, depending on its nature, source, and circumstances in which it was obtained. [Footnote 7C excluded]. ~~In addition, the reliability of information produced by the company or external information maintained by the company in electronic form is more reliable when the company's also depends on the effectiveness of the controls over that information, including, where applicable, information technology general controls and automated application controls, are effective. [Footnote 7D excluded] An example of inspection used as a test of controls is inspection of records for evidence of authorization.~~

We also recommend the Board consider modernizing AS 1105.08 since its use of 'original documents' does not account for information that may only exist in electronic form and may not be a 'document' at all. For example, when an electronic data transmission from a customer initiates a transaction in a company's ERP system, no physical or original document exists. We suggest the following edits to AS 1105.08:

.08 Evidence provided by in its original form documents, whether in hard copy or electronic form, is more reliable than evidence that has undergone conversion, copying, or other modifications from its original form ~~provided by photocopies or facsimiles, or documents that have been filmed, digitized, or otherwise converted into electronic form, the reliability of which depends on the controls over the conversion and maintenance of that information~~ ~~these documents.~~

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?

PCAOB standards should not require internal controls over information produced by the company and external information maintained by the company in electronic form to conclude such information is reliable

audit evidence for reasons discussed in response to question 10. While testing internal controls is one effective method for evaluating the reliability of information, there could be other methods to evaluate reliability that provides sufficient evidence. Requiring tests of controls over all external information obtained from a company and used by an auditor, including that used only for substantive testing purposes, will likely result in companies needing to design and implement controls over such information when they otherwise would not believe such controls to be necessary because the risk related to reliability is sufficiently low. For example, few companies implement specific controls over certain types of external information, such as third-party PDFs of invoices or receiving documents or of legal agreements downloaded and maintained on an employee's computer because management has not identified a risk related to reliability necessitating such controls. If auditors were required to test internal controls to use information as audit evidence, companies would likely be forced to establish controls beyond those they are required to have in place to comply with their financial reporting and internal control over financial reporting requirements.

We believe there could be large economic impacts to both non-integrated audits and integrated audits by requiring auditors to test controls over external information obtained by a company. Non-integrated audits, not otherwise required to test controls, would now be required to bring control testing, including information system controls, into scope for the sole purpose of using this information as audit evidence. For integrated audits, control testing outside the company's internal control over financial reporting could be required to be tested and controls over all electronic information maintained by the company in electronic form would be required even if only used for audit evidence.

We also believe there are circumstances where the company may have manual controls over the external information maintained by the company in electronic form. The Proposed Amendments' use of, "including information technology general controls and automated application controls" suggests the auditor is required to test those information technology general controls and automated application controls when the company has them in place regardless of whether manual controls that achieve the same objective are in place. Audit scope limitations could arise in situations where auditors are otherwise able to test manual controls to establish reliability of information because the specific technology general controls and automated application controls required by the Proposed Amendments do not exist or are ineffective.

Economic analysis

16. Are there additional potential costs that should be considered? If so, what are they?

While employing technology-assisted analysis on audit engagements can provide significant benefits to audit quality, we do not believe a reduction in audit fees is necessarily one of the benefits given the significant research and development investment to implement and maintain technology used in the audit. Further, there are significant costs to employ appropriately skilled individuals related to data and technology. We anticipate that the use of technology-assisted analysis throughout all stages of the audit process will expand as technology continues to advance, resulting in higher technology and related employee costs that may offset the benefits discussed in the Release. Furthermore, we expect to continue to identify innovative technologies and tools, which will require additional funding for research and development, implementation, and maintenance.

We believe those costs, as well as ongoing engagement-level costs, such as preparing company data for use in a technology-assisted analysis and the use of specialized skills and knowledge in an audit, may not be modest taken together. These efforts by firms and engagement teams are investments that require continuous maintenance as technology evolves.

Effective date

24. Would requiring compliance for fiscal years beginning after the year of SEC approval present challenges for auditors? If so, what are those challenges, and how should they be addressed?

The Proposed Amendments will require changes to our audit methodology, guidance and related tools as well as training to our professionals. Once these actions are complete, engagement teams will require

sufficient time to successfully incorporate the new requirements into the audit plan and coordinate involvement with other auditors.

Further, consistent with the Board's strategic plan, the Board has accelerated its standard-setting activity, resulting in several proposed new standards. We recommend the Board provide transparency about the expected timing of finalizing the various proposed standards and seek comment on the proposed effective dates. Without such clarity, we have limited ability to assess the aggregated efforts necessary to comply with the collective changes to the auditing standards.

Notwithstanding the forementioned, we recommend that the effective date should be no earlier than two years after the SEC's approval of the final amendments and final standard.