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Securities and Exchange Commission:

The Society of Petroleum Engineers (SPE) is a not-for-profit professional association whose members are engaged in energy resources development and production. SPE serves more than 79,000 members from 110 countries worldwide. SPE is a key resource for technical knowledge related to the oil and gas exploration and production industry and provides services through its publications, conferences, workshops, forums, and website at www.spe.org.

As an organization whose members lend their technical knowledge and experience to the estimation of reserves, SPE has taken the lead in developing a consistent framework for resource classifications. The SPE Oil & Gas Reserves Committee produced the Petroleum Resources Management System (PRMS) in 2007, working with the World Petroleum Council (WPC), American Association of Petroleum Geologists (AAPG), and the Society of Petroleum Evaluation Engineers (SPEE) which was approved by the Boards of the societies following a significant industry review and comment period. The PRMS is recognized as the worldwide standard for reserves and resources classification.

SPE, through the Oil & Gas Reserves Committee (OGRC), is also committed to expanding the awareness of the PRMS and training on its use. Since October 2006, more than 50 presentations on the PRMS have been made in 26 locations in 16 different nations. SPE will continue to offer training on the PRMS, with workshops currently under development in the U.S., Europe, Latin America, Russia, and Africa.

SPE appreciates the opportunity to provide the attached comments to SEC questions. Joining with SPE in endorsing these comments are the AAPG, with more than 30,000 members, and the Society of Exploration Geophysicists (SEG), with nearly 30,000 members.

Sincerely,

William M. Cobb



Society of Petroleum Engineers

Response to

CONCEPT RELEASE ON POSSIBLE REVISIONS TO THE DISCLOSURE REQUIREMENTS RELATING TO OIL AND GAS RESERVES

Securities and Exchange Commission

**17 CRF parts 210, 229, 231, and 241
Release Nos. 33-8870; 34-56945; File No. S7-29-07
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File Number S7-XX-07

Endorsed by the American Association of Petroleum Geologists (AAPG)
and the Society of Exploration Geophysicists (SEG)

Response to Questions

- 1. Should we replace our rules-based current oil and gas reserves disclosure requirements, which identify in specific terms which disclosures are required and which are prohibited, with a principles-based rule? If yes, what primary disclosure principles should the Commission consider? If the Commission were to adopt a principles-based reserves disclosure framework, how could it affect disclosure quality, consistency and comparability?**

SPE, working with the World Petroleum Council, American Association of Petroleum Geologists, and the Society of Petroleum Evaluation Engineers, developed the Petroleum Resources Management System (PRMS) to provide a consistent approach to estimating petroleum quantities, evaluating development projects, and presenting results within a comprehensive classification framework. Much of the newly-issued PRMS is based on principles rather than specific rules, and accordingly a principles-based system is highlighted as preferred. This means that the onus is placed on project evaluators to provide adequate support information to underpin their evaluation methodology. Therefore, the specific support information may vary from evaluator to evaluator, with the support for each evaluation being considered appropriate on a case-by-case basis. As stated in the PRMS, Section 1.2:

“The supporting data, analytical processes, and assumptions used in an evaluation should be documented in sufficient detail to allow an independent evaluator or auditor to clearly understand the basis for estimation and categorization of recoverable quantities and their classification.”

2. **Should the Commission consider allowing companies to disclose reserves other than proved reserves in filings with the SEC? If we were to allow companies to include reserves other than proved reserves, what reserves disclosure should we consider? Should we specify categories of reserves? If so, how should we define those categories?**

The PRMS fully describes and classifies the entire resource base while recognizing that there is a degree of uncertainty associated with resource estimation and states, in Section 2.2.2, that:

“Uncertainty in resource estimates is best communicated by reporting a range of potential results”

3. **Should the Commission adopt all or part of the Society of Petroleum Engineers – Petroleum Resources Management System? If so, what portions should we consider adopting? Are there other classification frameworks the Commission should consider? If the Commission were to adopt a different classification framework, how should the Commission respond if that framework is later changed?**

Yes, the PRMS should be referenced by the Commission, in its entirety, as the authoritative technical guidance for supporting any reporting requirements that the Commission may ultimately adopt. The PRMS was developed specifically to provide users of reserves and resources information a system that is suitably flexible for all needs, while providing consistent, comparable results across user group or geographic or regulatory boundaries. Additionally, PRMS was developed to be enduring. Every effort was made to provide flexibility to accommodate developing commercial activities, legal requirements, technical advancements, etc., without the need for revisions to the system. If in the future, revisions are required, the SPE Oil and Gas Reserves Committee (OGRC) process of requesting input from our knowledgeable worldwide membership, the WPC, sister societies (AAPG, SEG and SPEE among others) and a broad stakeholder group, and subsequently posting revisions to the System on SPE’s web-site for public comment, provides built-in transparency and public access to all users.

Adopting the PRMS as the definitions used for reserves and resources estimation and reporting satisfies the SEC’s need to keep their regulatory definitions current with industry practice. It capitalizes on SPE’s unparalleled expertise in reserves estimation and is supported by a standing committee that readily accepts the challenge and opportunity to review and alter the PRMS in light of any developments which may ultimately require its revision. The PRMS is a robust, flexible framework specifically designed to provide consistent, comparable reserves and resources definitions for all users. Recently adopted OGRC Governance Practices formalize independence and professionalism within the group charged to maintain and update PRMS.

4. Should we consider revising the current definition of proved reserves, proved developed reserves and proved undeveloped reserves? If so, how? Is there a way to revise the definition or the elements of the definition, to accommodate future technological innovations?

The PRMS considers reserves to be a subset of the overall resource base, and proved reserves to therefore be a subset of reserves. In respect to a specific definition for proved reserves, the fundamental definition is found in Section 2.2.2, and is stated as follows:

“Proved Reserves are those quantities of petroleum, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be commercially recoverable, from a given date forward, from known reservoirs and under defined economic conditions, operating methods, and government regulations. If deterministic methods are used, the term reasonable certainty is intended to express a high degree of confidence that the quantities will be recovered. If probabilistic methods are used, there should be at least a 90% probability that the quantities actually recovered will equal or exceed the estimate.”

The PRMS also defines developed and undeveloped classes for all reserve categories, including proved, and that definition is included in Section 2.1.3.2, as follows:

- *Developed Reserves are expected quantities to be recovered from existing wells and facilities.*
 - *Developed Producing Reserves are expected to be recovered from completion intervals that are open and producing at the time of the estimate.*
 - *Developed Non-Producing Reserves include shut-in and behind-pipe Reserves.*
- *Undeveloped Reserves are quantities expected to be recovered through future investments.*

Where Reserves remain undeveloped beyond a reasonable timeframe, or have remained undeveloped due to repeated postponements, evaluations should be critically reviewed to document reasons for the delay in initiating development and justify retaining these quantities within the Reserves class. While there are specific circumstances where a longer delay (see Determination of Commerciality, section 2.1.2) is justified, a reasonable time frame is generally considered to be less than 5 years.”

5. Should we specify the tests companies must undertake to estimate reserves? If so, what tests should we require? Should we specify the data companies must produce to support reserves conclusions? If so, what data should we require? Should we specify the process a company must follow to assess that data in estimating its reserves?

The PRMS broadly refers to the estimation of volumes through “the analysis of geoscience and engineering data”. The PRMS does, however, contain a complete section, Section 4.1, on Analytical Procedures. In providing this information, the PRMS recognizes that specific situations may require varying methodologies to support the estimation of volumes, and the merits of each method depend on the circumstances. It should be noted that the PRMS is not meant to be a textbook of methodologies, and the SPE defers to the many competent textbooks, manuals or reference documents that exist for more detailed descriptions of methodologies. However, in respect to specific tests or data, the PRMS in Section 2.1.2 does state:

“To be included in the Reserves class, there must be a high confidence in the commercial producibility of the reservoir as supported by actual production or formation tests. In certain cases, Reserves may be assigned on the basis of well logs and/or core analysis that indicate that the subject reservoir is hydrocarbon-bearing and is analogous to reservoirs in the same area that are producing or have demonstrated the ability to produce on formation tests.”

6. Should we reconsider the concept of reasonable certainty? If we were to replace it, what should we replace it with? How could that affect disclosure quality? Should we consider requiring companies to make certain assumptions? Should we prohibit others?

The PRMS currently utilizes the phrase “reasonable certainty” in its description of Proved Reserves, which is defined in the Glossary as:

“...a high degree of confidence that the estimated quantities will be recovered”

It is realized that this remains a qualitative term, relying on the individual evaluator’s judgment to so deem a volume, and to provide documentation in support of that characterization.

7. Should we reconsider the concept of certainty with regard to proved undeveloped reserves? Should we allow companies to indefinitely classify undeveloped reserves as proved?

The PRMS does not differentiate between the certainty surrounding proved developed versus proved undeveloped reserves, casting the Proved Reserves category as a whole to contain volumes calculated with reasonable certainty.

The PRMS does state that initiation of development of proved reserves should be within a reasonable timeframe, with the documentation of such being the burden of the evaluator. The PRMS states in Section 2.1.2:

“To be included in the Reserves class, a project must be sufficiently defined to establish its commercial viability. There must be a reasonable expectation that all required internal and external approvals will be forthcoming, and there is evidence of firm intention to proceed with development within a reasonable time frame. A reasonable time frame for the initiation of development depends on the specific circumstances and varies according to the scope of the project. While 5 years is recommended as a benchmark, a longer time frame could be applied if, for example, development of economic projects are deferred at the option of the producer for, among other things, market-related reasons, or to meet contractual or strategic objectives. In all cases, the justification for classification as Reserves should be clearly documented.”

Additional reference to proved undeveloped reserves is also included in our comments to question #4 above.

8. Should we reconsider the concept of economic producibility? If we were to replace it, what should we replace it with? How could that affect disclosure quality? Should we consider requiring companies to make certain assumptions? Should we prohibit others?

The concept of economic producibility is not, in itself, considered to be an unreasonable concept. However, the PRMS identifies one of its primary defining factors to be commerciality, and considers this the primary point of recognition for reserves as a subset of resources. Economic producibility is often the conclusion derived from an engineering extrapolation of flow test rates, pressures, anticipated completion technology, and development planning. Sections 2.1.2 and 2.1.3 of the PRMS describe the basis for the recognition of commerciality, and therefore reserves. Economic producibility in and of itself does not, under the PRMS, provide reserves status to a volume, but rather must be accompanied by project commitment. It becomes the charge of the evaluator to document the basis for project commitment, along with economic producibility, for the commercial threshold to be achieved. The assumptions supporting

commerciality may, by their nature, vary from asset to asset and potentially from company to company. It may be difficult to specifically prohibit or require certain assumptions at other than a high level.

9. Should we reconsider the concept of existing operating conditions? If we were to replace it, what should we replace it with? How could that affect disclosure quality? Should we consider requiring companies to make certain assumptions? Should we prohibit others?

A requirement for Proved Reserves as outlined in Section 2.2.2 of PRMS is commercial recovery under “*defined economic conditions, operating methods and government regulations*”.

Section 3.1 further states:

“Commercial conditions include, but are not limited to, assumptions of financial conditions, (costs, prices, fiscal terms, taxes) marketing, legal, environmental, social and governmental factors. Project value may be assessed in several ways (e. g. historical costs, comparative market values);”

As stated previously, PRMS requires commerciality as a basis for reserves recognition. As also previously outlined, PRMS requires the evaluator to document the basis for the declaration of proved reserves, including defined operating conditions. As with the concept of economic producibility, assumptions supporting defined operating conditions vary by asset. Prohibiting or requiring assumptions, other than at a very high level, is inconsistent with a fundamental premise of PRMS that the evaluator is responsible for developing and documenting the specific assumptions required to support reserves classification.

10. Should we reconsider requiring companies to use a sale price in estimating reserves? If so, how should we establish the price framework? Should we require or allow companies to use an average price instead of a fixed price or a futures price instead of a spot price? Should we allow companies to determine the price framework? How would allowing companies to use different prices affect disclosure quality and consistency? Regardless of the pricing method that is used, should we allow or require companies to present a sensitivity analysis that would quantify the effect of price changes on the level of proved reserves?

It is the view of SPE that PRMS contains sufficient flexibility with regard to pricing to accommodate specific regulatory requirements. In Section 3.1.2 of PRMS economic criteria guidelines prove:

“Evaluators must clearly identify the assumptions on commercial conditions utilized in the evaluation and must document the basis for these assumptions.

The economic evaluation underlying the investment decision is based on the entity’s reasonable forecast of future conditions, including costs and prices, which will exist during the life of the project (forecast case). Such forecasts are based on projected changes to current conditions; SPE defines current conditions as the average of those existing during the previous 12 months”.

11. Should we consider eliminating any of the current exclusions from proved reserves? How could removing these exclusions affect disclosure quality?

Yes, some current SEC regulatory exclusions are not relevant within PRMS. As stated in Section 1.1 of PRMS:

“Petroleum is defined as a naturally occurring mixture consisting of hydrocarbons in the gaseous, liquid or solid phase.”

Reserves and resource classification within PRMS is dependent upon the concept of project maturity, but not project type. As such, use of PRMS as the basis for reserves reporting would remove the link between proved reserves and method used to recover the petroleum product. Under PRMS, hydrocarbons to be recovered from both conventional and unconventional production operations can be considered proved, if they meet the underlying requirements for proved reserves. No distinction is made between recovery achieved through drilling or mining operations.

12. Should we consider eliminating any of the current exclusions from oil and gas activities? How could removing these exclusions affect disclosure quality?

As presented in the response to Question 11, fundamental to PRMS is the assumption that reserves are the quantities of petroleum to be commercially recoverable, regardless of the type of project used to recover the volumes. Use of PRMS as the technical basis for reserves reporting would replace the concept of oil and gas producing activities with projects. “Projects”, as defined in Table 3, do not require specific activities, but cover a broad range of activities over a range of development scenarios. Adopting PRMS would negate the concept of oil and gas producing activities in favor of recovery projects that are commercially recoverable.

13. Should we consider eliminating the current restrictions on including oil and gas reserves from sources that require further processing, e.g., tar sands? If we were to eliminate the current restrictions, how should we consider a disclosure framework for those reserves? What physical form of those reserves should we consider in evaluating such a framework? Is there a way to establish a disclosure framework that accommodates unforeseen resource discoveries and processing methods?

Answers to Questions 11 and 12 address PRMS classification of petroleum that requires additional processing. The requirement for reserves outlined in PRMS 1.1 is that they must be:

“discovered, recoverable, commercial, and remaining (as of the evaluation date) based on the development projects applied.”

Tar Sands were envisioned under PRMS to be included in petroleum reserves, as were all petroleum products, whether their recovery is considered ‘conventional’ or not. Additionally, since reserves are defined in Table 1 as *“those quantities of petroleum anticipated to be commercially recoverable...”* PRMS envisions the volume that can be considered reserves to be the recoverable volume.

14. What aspects of technology should we consider in evaluating a disclosure framework? Is there a way to establish a disclosure framework that accommodates technological advances?

As shown in Figure 1-1 of PRMS, it was developed as an all encompassing resource system that includes all aspects of technology in the reserves and resources evaluation process. As previously discussed, the concept of ‘project’ is fundamental to reserve classification within PRMS. As such, the concept of “project” is broadly applied, resulting in a system that is not built around specific recovery processes or operational conditions. PRMS is therefore, independent of specific production technology and resilient to future technology changes.

15. Should we consider requiring companies to engage an independent third party to evaluate their reserves estimates in the filings they make with us? If yes, what should that party’s role be? Should we specify who would qualify to perform this function? If so, who should be permitted to perform this function and what professional standards should they follow? Are there professional organizations that the Commission can look to set and enforce adherence to those standards?

As previously stated, SPE does not consider it appropriate to offer opinions on specific regulatory requirements. However, SPE would recommend that the “Standards Pertaining to the Estimating and Auditing of Petroleum Reserves Information”, developed by the SPE OGRC, serve as a complement to the PRMS for anyone involved in independent reserves evaluation. It provides valuable information on the qualifications of reserve estimators, relevant terms used in reserve estimates, standards of independence of estimators, and recommended documentation and model reports for use by reserves estimators. Combined with PRMS, the two documents are intended to provide the tools necessary to develop technically sound, consistent, and comparable, reserves and resource estimates. In this context, it is irrelevant whether the tools referred to are applied by experts of a company or an independent third party.

In addition to the areas for comment identified above, we are interested in any other issues that commenters may wish to address and the benefits and costs relating to investors, issuers and other market participants of the possibility of revising disclosure rules pertaining to petroleum reserves included in Commission filings. Please be as specific as possible in your discussion and analysis of any additional issues. Where possible, please provide empirical data or observations to support or illustrate your comments.

SPE is aware that the Australian Securities Exchange has adopted the use of PRMS. Additionally the Canadian Securities Administrators oil and gas disclosure legislation (National Instrument 51-101) requires the definitions and practices of the Canadian Oil and Gas Evaluation Handbook to be used for regulatory reporting. With his permission, we respectfully suggest that David Elliot, ASC Chief Petroleum Advisor may be willing to provide independent comments regarding ASC’s experience in implementing a system that is similar to PRMS as the technical basis for their regulatory reporting.