

responses to the following question: In comparison to the proposed approach, under what conditions would a royalty suspension volume or supplement allocated among several leases within a unit result in either more deep drilling or less administrative burden?

The royalty relief would end as soon as cumulative qualified production from or allocated to the lease with the successful qualifying deep well reaches the royalty suspension volume. This differs from royalty suspensions in deep water, where the relief lasts through the end of the month when production reaches the royalty suspension volume. We propose this difference because the time duration over which suspension volumes are taken is much shorter for deep gas than for deepwater royalty relief. Taking into account the expected production rates and volume suspension levels, we believe that leases with the proposed deep gas relief would use four times the portion of the applicable royalty suspension volume that a deepwater field would use in a month. This means that in cases where the relief volume for deep gas is reached early in the month, extension of relief throughout the month would provide a much larger proportional increase in that part of a lease's total production that is royalty-free in comparison to the deepwater paradigm. Continuing royalty suspension through the end of the month typically would add over two percent to total deep gas relief, versus only 0.5 percent to total deep water relief, on a lease whose cumulative qualified production reached the prescribed suspension volume on the first day of the month.

Once production commences from a successful qualified deep well, the lessee is to notify us within 30 days to confirm the royalty suspension volume. The confirmation promotes understanding and agreement of royalty terms and helps avoid confusion when a lease has both royalty-bearing and royalty-free production. See proposed § 203.43.

Royalty Suspension Supplements

The probability of future drilling success is anticipated to be relatively low in the case of drilling 18,000 feet TVD SS or deeper. To offset this high risk, we propose an incentive for drilling even unsuccessful exploration wells to at least 18,000 feet TVD SS (hereafter sub-18,000 foot well). A small supplemental royalty suspension volume for an unsuccessful well along with a larger royalty suspension volume for a successful well is a more cost-effective incentive than a royalty suspension volume alone. As with the

royalty suspension volume, the lease block with the reservoir targeted by the new sub-18,000 foot well qualifies for the royalty suspension volume.

This supplemental royalty suspension is important because providing larger royalty suspension volumes only for successful wells becomes progressively less effective in encouraging new development as the suspension size increases. First, each extra unit of relief is captured later in the production profile and, hence, is less valuable to the operator. Second, the potential to use all the suspension volume declines when it exceeds the expected size of the initially discovered deep reservoir. Less than 10 percent of the leases having a deep-well discovery found more than a single reservoir in the deep depths. Third, it is also possible that some operators value the opportunity to minimize the costs of failure more than enhancing the benefits of success. In proposing to set the royalty suspension volume and royalty suspension supplement levels, our analysis takes into consideration the inter-relationship between royalty relief for successful and unsuccessful drilling efforts on expected lease profitability. Consequently, we would be able to reduce the suspension volume amounts for successful deep well drilling as a result of adding the royalty suspension supplement option, while generating at least as much incremental effect on future drilling activity.

A royalty suspension supplement offers other program benefits by reducing the magnitude of the royalty suspension volumes for successful drilling. Large suspension volumes only for successful wells provide more of the relief to reservoirs that would have been drilled promptly and profitably without any royalty relief. Also, with rapid improvements in technology, smaller suspension volumes for successful drilling could become appropriate. Because we set program parameters years before the program expires, we need to be careful not to promulgate incentives at levels that could become higher than necessary. Accordingly, it is fiscally prudent to accelerate deep gas production with different types of drilling incentives for selected kinds of leases that recognize the variations in drilling costs and risks across drilling depth categories.

Along with volume suspensions on successful deep wells, § 203.44 proposes relief for unsuccessful certified wells, 18,000 feet TVD SS or deeper, in the form of a five BCF royalty suspension supplement. To avoid incentives that would distort reasonable drilling efforts, we propose to share only part of the

cost. Thus, we set the value of the royalty suspension supplement for drilling an unsuccessful certified well below the full cost of exploration and below the magnitude of the royalty suspension volume for drilling a successful well. Because of the significantly greater cost and risk for drilling 18,000 feet TVD SS or deeper, we would offer the royalty suspension supplement only for drilling to these very deep reservoir targets.

An unsuccessful certified well is defined in proposed § 203.0 as a well that is:

- Drilled but not completed to a depth of at least 18,000 feet TVD SS;
- Targeting a reservoir identified from seismic and related data, that does not produce or that MMS agrees is not commercially producible (by computing minimum developable reservoir sizes for that drilling depth using geological and geophysical data, resource magnitudes and timing of production, price forecasts, and industry required rates of return); and
- On which drilling begins:
 - (1) After the publication date of this proposed rule,
 - (2) Before five years after the effective date of the final rule, and
 - (3) Before there is any production from a successful qualified deep well on that lease.

Under this proposed provision, MMS would not allow any royalty suspension supplement if the lessee starts drilling the unsuccessful sub-18,000 foot well after gas or oil has been produced from any deep well on the lease. Also, the lessee is to notify the MMS Regional Supervisor for Production and Development of the intent to commence drilling a sub-18,000 foot well. Then, after drilling the well, the lessee is to provide the data necessary to confirm an unsuccessful well within 60 days after the well reaches its Total Depth (TD) deeper than 18,000 feet TVD SS. Such data may include well test data, seismic and economic data that prove the well met the standard of an unsuccessful certified well. We seek notification of intent to drill sub-18,000 foot wells in part because the lease may be participating in the RIK program and MMS will need to have advance notification to manage the RIK oil and gas workload. We would set the 60-day deadline so that our review and concurrence in the non-commerciality of the well occur close to the same time and, thus, with about the same market conditions as when the lessee drilled the well. Shortly after receiving the necessary data, we intend to send a notice confirming or denying that the