

deep gas production at the present time. We estimate that a 25 BCF royalty suspension volume reduces the size of a reservoir worth exploring immediately at these depths by 15 to 20 percent (in a typical case, from 48 to 40 BCF), and an additional 15 to 20 percent when combined with the royalty suspension supplement portion of the program discussed later. Also, this same program of relief would tend to accelerate the search for natural gas by making projects planned for future drilling economic sooner. Therefore, it would encourage earlier exploration of many additional reservoirs. This acceleration effect will make it profitable to drill and produce immediately some reservoirs with relief, rather than to defer these activities for 5–10 years without relief. We expect this incentive will spur earlier exploration activity for reservoirs that are smaller than 90 BCF, which is the level at which prompt exploration is currently optimal without any incentives. Our latest assessments indicate that about 75 percent of all the undiscovered, but technically recoverable deep gas reservoirs are smaller than 90 BCF. Thus, we expect our program to substantially increase the number of wells that will be drilled earlier than they otherwise would be.

We propose a royalty suspension volume per lease of 15 BCF on natural gas production from new wells on a lease block with completions in the interval from 15,000 to less than 18,000 feet TVD SS. The smaller proposed royalty suspension volume for natural gas production from wells drilled in this depth interval is appropriate because the costs of drilling are significantly lower and the chances of success higher than for wells deeper than 18,000 feet TVD SS.

Recent American Petroleum Institute (API) surveys (Joint Association Survey on 1999 and 2000 Drilling Costs, API, Independent Petroleum Association of America, and Mid-Continent Oil & Gas Association) show that typical costs to drill prospects in the 15,000 to 18,000 foot depth interval on the OCS run a little more than one-half as much as drilling deeper than 18,000 feet TVD SS. Moreover, we estimate success rates for future wells drilled in the 15,000 to 18,000 foot depth interval to be two-thirds higher than the success rate for wells drilled deeper than 18,000 feet TVD SS. Thus, the 15 BCF royalty suspension volume is determined to accelerate drilling for reservoirs between 15 and 50 BCF. We estimate reservoirs of the 35 to 50 BCF size can be drilled profitably in the near future with relief, but would be delayed considerably under current conditions

without relief. Thus, reservoirs larger than 50 BCF are the current target size that adequately accommodates the economic risks and costs of drilling gas wells in the better-known geologic formations in the 15,000 to 18,000 foot depth interval.

Administratively, production from the first successful qualified deep well would establish the royalty suspension volume for the lease. To qualify, the lessee must notify the MMS Regional Supervisor for Production and Development of intent to commence drilling the deep well and production would have to begin from the deep well no later than five years after the effective date of the final rule, so that the program benefits can be realized sooner rather than later. We require notification of intent to drill deep wells partly because if the lease is participating in the Royalty-in-Kind (RIK) program, we need to be alerted in advance of any activities that could affect the placement of RIK production by the Minerals Revenue Management (MRM) organization of MMS. Under the RIK program, the government accepts royalties in product rather than in cash and sells it under contract as described at [www.mrm.mms.gov/rikweb](http://www.mrm.mms.gov/rikweb).

The royalty suspension volume is applied to deep gas production beginning the day that the lessee notifies MMS that deep gas production has begun. Also, if production begins from a well in the 15,000 to 18,000 foot depth interval, the royalty suspension volume for the lease would not increase above the level applicable to that well, even if the lessee later completes a well deeper than 18,000 feet TVD SS. We propose this stipulation because the initial success of a deep well reduces the risks associated with subsequent deep wells sufficiently to eliminate the need for an added incentive to drill even deeper wells. The incentive is to promote drilling of the primary target, not subsequent secondary ones. We rely on the drilling of a new well (subsequent to the date of the proposed rule), that is completed to a reservoir of certain depth as the indicator of response to the incentive, as opposed to conditioning relief on drilling into a new reservoir. This way we avoid the potential complications associated with delineating the boundaries of the reservoir across multiple leases. These royalty suspension volumes for deep gas production would not override the minimum royalty or rental obligations of the lease and unused portions would be transferable to a successor lessee.

Proposed § 203.42 authorizes application of the royalty suspension volume to gas production from other

deep wells on, or allocated under an approved unit agreement to, the lease, subject to several conditions designed to increase deep drilling. The lease to which the production is allocated must have its own successful qualified deep well. Also, drilling of other deep wells from which production is allocated to your lease has to begin after the publication date of this proposed rule in the **Federal Register**. But this allocated production may come from a lease on the unit that does not have or is ineligible for a royalty suspension volume. For example, your neighboring lease within the unit may have drilled a deep well before the qualifying date and therefore disqualifying that lease for relief. Yet, a subsequent well drilled after the qualifying date on that lease does allow royalty-free production to be allocated to your lease. While production from deep wells on the unit can be allocated across leases, the royalty suspension volume from other leases on the unit may not be allocated across leases. Under these conditions, the production to which your royalty suspension would apply includes allocated production from other deep wells within the unit.

The royalty relief, in the form of a royalty suspension volume, may not be applied to production from shallow wells or to hydrocarbons other than gas. The royalty suspension volume applies to the gas production volume as reported on the Oil and Gas Operations Report, Part A (OGOR–A). Note that if the gas is transferred to a gas plant for processing prior to sale, the gas production volume reported on the OGOR–A will be higher than the residue gas volume attributable to the deep gas well.

Notwithstanding a unit agreement, we propose generally to maintain a simple lease-based relief structure by restricting a royalty suspension volume to the lease on which a deep well is completed and the royalty suspension supplement (as described later in this preamble) to the lease on which a deep well is targeted. This approach is consistent with existing administrative designations relating wells to leases. It also avoids the need to regulate decisions about the participating area and the allocation of a royalty suspension volume across a joint operation. We believe that lessees on a unit contemplating drilling a deep well jointly can work out financial arrangements to cover a broad variety of circumstances, e.g., a situation where those unitized leases without a deep well would have to pay royalty on any production allocated to them from the deep well. To help us assess the validity of this inference, we would like