

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

43 CFR Parts 3900, 3920, and 3930

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RIN 1004-AE28

Oil Shale Management—General

AGENCY: Bureau of Land Management, Interior.

ACTION: Final rule.

SUMMARY: The Bureau of Land Management (BLM) is issuing this final rule to amend the Federal oil shale management regulations by revising certain sections in 43 CFR parts 3900, 3920, and 3930 to address concerns about the royalty system in the existing regulations and to provide more detail in the environmental protection requirements. These amendments provide some flexibility in royalty rates by designating the royalty rates set by the final 2008 rule as minimum rates and providing that the royalty rate will be set in the notice of sale or at the time of Research, Development, and Demonstration (R, D and D) lease conversion. Additionally, this rule revises certain regulatory sections relating to lease issuance, approval of a plan of development (POD), and conversion of an R, D and D lease to a commercial lease, to include additional requirements relating to protection of the environment.

DATES: This final rule is effective on [INSERT DATE 30 DAYS AFTER THE DATE OF PUBLICATION IN THE FEDERAL REGISTER].

FOR FURTHER INFORMATION CONTACT: Mitchell Leverette, Chief, Division of Solid Minerals, at 202-912-7113 for issues related to the BLM’s commercial oil shale leasing Program, or Chandra Little, Division of Regulatory Affairs at 202-912-7403 for regulatory process issues. Persons who use a telecommunications device for the deaf (TDD) may call the Federal Relay Service at 1-800-877-8339 to contact the above individuals during normal business hours. The service is available 24 hours a day, 7 days a week to leave a message or question for the above individuals.

SUPPLEMENTARY INFORMATION:

Executive Summary

- I. Purpose of the Regulatory Action
 - a. The Need for the Action

The United States has vast amounts of oil shale; many of the thickest, richest deposits are in the States of Colorado, Utah, and Wyoming. Significant portions of those deposits are within Federal lands. Those deposits contain enough kerogen to create immense amounts of fluid fuels. However, there is not yet a technology proven in the United States that can economically produce liquid fuels from oil shale. Continued advances in science and technology, and changing market conditions, may combine in the near or distant future to render oil shale operations commercially viable. Even then, it is likely that it will remain more economical to produce oil and gas from conventional reservoirs or from “tight” oil and gas formations.

Nevertheless, in 2008, the BLM promulgated regulations governing exploration, leasing, and operations for oil shale, pursuant to the Energy Policy Act of 2005 (EP Act).

Environmental advocates challenged those regulations in court. In settlement of that case, the BLM agreed to publish several proposed amendments to the regulations. The BLM did not commit to promulgate any of the proposed revisions as final rules.

The BLM published those proposed amendments on March 27, 2013, for public comment, and the public comment period closed (after an extension) on July 15, 2013. In considering the 2008 oil shale regulations, the 2013 proposed amendments, and the public comments, the BLM determined that improvements to the 2008 oil shale regulations were necessary to better promote the policies for oil shale leasing and development set forth by Congress in Section 369(b) of the EP Act (42 U.S.C. 15927(b)), as well as to carry out the BLM's other statutory authorities. The BLM has decided to promulgate some of the proposed amendments, to promulgate modified versions of others, and not to promulgate a few of the proposed amendments.

The amendments in this final rule provide the Secretary of the Interior flexibility in establishing royalty rates, allowing her to consider technical, cost, and market information that is not available now. The final rule also makes explicit the BLM's discretion to deny a conversion of an R, D and D lease to a commercial lease, or withhold approval of a plan of development, based on impacts to the environment or natural resources. The amendments require plans of development (PODs) to include plans to protect water resources, an airshed review based on reasonably available data, an integrated waste management plan, and an environmental protection plan. These regulatory amendments ensure that, should oil shale become economical to produce, the

BLM's oil shale program will be better able to promote development of oil shale as a strategically important domestic fuel resource, while assuring that operations are conducted in an environmentally sound manner that minimizes impacts.

b. Legal Authority

The BLM is authorized to promulgate regulations governing exploration, leasing, and development of Federally owned oil shale resources by the Mineral Leasing Act of 1920, the Mineral Leasing Act for Acquired Lands Act of 1947, the Federal Land Policy and Management Act of 1976 (FLPMA), and the EP Act. Statutory authority to promulgate regulations includes authority to amend those regulations as necessary, in the Secretary's discretion.

II. Summary of Provisions

The first provision in these amendments adds flexibility to the royalty system promulgated in 2008. That system required commercial operations to pay royalties of five percent per year for the first five years of production, increasing by one percent per year beginning in year six, to a maximum rate of 12.5 percent in year 13. The final rule modifies the regulations to establish the five and 12.5 percent levels as minima. Specifically, the modified provision keeps the annual escalator clause for years six through twelve but allows the Secretary to set the initial royalty rate applicable in years one through five on a lease-by-lease basis. This approach allows the Secretary to consider all relevant factors, including geology, technology, costs, and market prices for oil and gas. Until there is a domestic commercial oil shale industry, we can only speculate about what royalty rates those factors would support. There are foreseeable

circumstances in which a royalty of five percent could be appropriate, and others in which that rate would be too low.

The second provision in these amendments makes clear that the BLM may deny a conversion of an R, D and D lease to a commercial lease, and may deny a proposed POD, based on anticipated impacts to the environment or natural resources, such as impacts that would cause unnecessary or undue degradation of the public lands. That discretion was implicit in the R, D and D leases, and in the 2008 rules, because approval of lease conversion or of a POD was and remains a discretionary action. As such, the BLM must assure that its decisions are consistent with multiple-use and sustained-yield management principles, and will prevent unnecessary or undue degradation of the public lands, as required by FLPMA. The BLM will work with applicants to develop mitigation measures that could allow lease conversion or development to go forward despite identified impacts.

The third set of amendments provides more detail about the environmental information and planning required in a POD. The new requirements are a watershed protection plan for surface and groundwater resources; an airshed review of reasonably available scientific data or modeling to predict probable air quality effects of operations; an integrated waste management plan; and an environmental protection plan that includes minimization of adverse effects on air, water, wildlife, native plants, and productivity of soils, as well as monitoring, adaptive management, and mitigation of adverse effects. This information will reduce the likelihood that the BLM would need to delay completion of an analysis under the National Environmental Policy Act (NEPA) while seeking more

details from operators. These plans should also assure that the mitigation approved in the PODs will prevent unnecessary or undue degradation of the public lands and will promote multiple-use and sustained-yield management of those lands.

III. Costs and Benefits

The BLM's analysis concludes that the final rule will have an impact on the economy of far less than \$100 million, that it will not have a significant economic impact on a substantial number of small businesses, and that it will not impose an unfunded mandate on state, local, or tribal government. It also will not interfere with constitutionally protected property rights, or have direct effects on states. The final rule will not significantly affect energy supply, distribution, or use.

The available estimates are that if and when a commercial oil shale industry is established on public lands, it could consist of three to 17 operations extracting and retorting oil shale, supported by several more firms providing specialized services. The oil shale industry is likely to include both large and small firms, but the total number of firms in the industry will likely be a small fraction of the more than 6,000 firms directly involved in the extraction of crude oil and natural gas in the United States.

The final rule will somewhat reduce certainty regarding the royalty rate or rates that will apply to particular operations, which could slightly inhibit investment in oil shale research or development. The effect of this change on potential future investment in oil shale is neither quantifiable nor large. By leaving the 2008 royalty schedule in place as a minimum, the industry is provided some bounding of uncertainty regarding royalty rates.

Moreover, industry would know the royalty rates prior to investing in a commercial lease or lease conversion. Finally, any impact of this reduction in certainty about royalties would be very small compared to the effects of the very large uncertainties and financial and technical challenges to producing fuel from oil shale at prices competitive with conventional oil production.

As noted, the final rule also requires operators to provide additional information and environmental planning in PODs. The BLM estimates the total burden hours of those new requirements to be 160 hours, increasing the total burden hours for preparing a POD to 468 hours. Based on the estimated weighted average of \$61.11 per hour for preparation of a POD, the estimated increase in cost associated with the additional burden hours is \$9,778 per POD. Some operators may need to purchase data or analysis, such as an airshed model (if one is available at a reasonable cost).

At this time, the BLM does not have any information on the cost that an operator may incur if data or analysis is purchased in conjunction with the new information submission requirements for a POD, as no PODs have been submitted and reviewed by the BLM since no commercial oil shale leases have been issued. Although few of the costs and benefits of this rule are quantifiable, the BLM has determined that the new information collection activities are necessary to enable the BLM to regulate commercial leases to promote orderly development and production of oil shale, while protecting the environment.

- I. Background
- II. Discussion of Comments on the Proposed Rule
- III. Section by Section
- IV. Procedural Matters

I. Background

The 2008 Oil Shale Rule

On November 18, 2008, the BLM published final oil shale regulations in the Federal Register (73 FR 69414). The regulations were required by Section 369 of the Energy Policy Act of 2005 (42 U.S.C. 15927). Section 369 addresses oil shale development and directs the Secretary of the Interior (Secretary) to establish regulations for a commercial leasing program. The Mineral Leasing Act of 1920 (30 U.S.C. 241) (MLA) also authorizes the BLM to lease oil shale resources on public lands.

Litigation and Settlement

Several environmental groups challenged the 2008 rule in U.S. District Court in Colorado. Industry representatives intervened in support of the rule. The Department of the Interior (Department) and the plaintiffs reached a settlement agreement, under which the BLM would publish a rule in the Federal Register proposing for public comment several specific amendments to the 2008 rule. Although the settlement agreement required the Department to complete the rulemaking process, it did not constrain the discretion of the Secretary over whether and how to amend the 2008 rule.

Notice of Proposed Rulemaking in 2013

On March 27, 2013, the BLM published in the Federal Register a proposed rule that would revise certain regulatory provisions of 43 CFR parts 3900, 3920, and 3930 (78 FR 18547). The proposed rule provided the BLM with an opportunity to reconsider certain provisions of the 2008 regulations that were challenged in Federal court, including whether to specify additional requirements for PODs to promote environmental protection. The proposed rule also provided an opportunity for the BLM to consider whether a single royalty rate or rate structure should be set in advance in regulation to provide certainty to potential lessees, and if so, whether that royalty rate should be the scale set in the 2008 regulations, or a flat 12.5% (or other) rate, or whether some administrative flexibility should be retained to allow royalty rates to be set lease-by-lease, as more is learned about the costs associated with development of oil shale. The preamble included a discussion of several options for consideration in replacing the royalty rates established by the 2008 regulations, and requested comments on those options.

The comment period for the proposed rule closed on May 28, 2013. In response to requests from interested parties that the BLM extend the comment period, the BLM reopened the comment period until July 15, 2013 (78 FR 35601 (June 13, 2013)).

Programmatic Environmental Impact Statement and Amended Land Use Plans

Concurrently with its review of the 2008 final oil shale regulations, the BLM initiated a new public planning process related to oil shale and tar sands. On April 14, 2011, the BLM published in the Federal Register a Notice of Intent to Prepare a

Programmatic Environmental Impact Statement (PEIS) and Possible Land Use Plan Amendments for Allocation of Oil Shale and Tar Sands (OSTS) Resources on Lands Administered by the BLM in Colorado, Utah, and Wyoming (76 FR 21003). The Federal Register notice stated that BLM intended to take a fresh look at the 2008 OSTS plan amendments and “to reassess the appropriate mix of allowable uses with respect to oil shale and tar sands leasing and potential development.” Following extensive environmental analysis, public participation, and agency reviews, the BLM published in the Federal Register the notice of availability for the Final PEIS on November 9, 2012. That began the public protest period, which ended December 9, 2012. The BLM received seventeen protest letters and answered the protests on March 23, 2013. (See 78 FR 18549). On November 8, 2012, the BLM submitted the proposed plan amendments, to the Governors of Colorado, Utah, and Wyoming for a 60-day Governors’ Consistency Review. The BLM received recommendation letters from the governors of Utah and Wyoming. After consideration, the BLM decided not to adopt the recommendations by the Governors. (See 78 FR 29379).

The Record of Decision (ROD) was signed by the BLM Principal Deputy Director on March 22, 2013. The ROD changed the 2008 land use allocation decisions and amended pertinent Resource Management Plans (RMPs) to identify areas in Colorado, Utah, and Wyoming as open or closed to future oil shale and tar sands leasing. Pertinent to this rule, the ROD amended ten land use plans in Colorado, Utah, and Wyoming to make approximately 678,600 acres of lands containing oil shale resources open to application for future leasing and development. The ROD provides that the areas

allocated as open for future oil shale leasing are, at this time, open only to R, D and D leasing. The ROD additionally provides that the BLM would issue a commercial lease only after a lessee satisfies the conditions of its R, D and D lease and the regulations at 43 CFR subpart 3926 for conversion to a commercial lease. The preference right acreage, if any, that would be included in the converted lease, would be specified in the R, D and D lease.

On July 25, 2013, a coalition of environmental organizations filed a lawsuit in United States District Court for the District of Colorado alleging that the BLM failed to comply with the Endangered Species Act (ESA) in amending nine of the ten RMPs. The American Petroleum Institute intervened as a plaintiff in that lawsuit, raising different issues. That case remains pending.

Oil Shale Research, Development, and Demonstration Program

First Round

The Oil Shale R, D and D program began June 9, 2005, when the BLM published a call for nominations in the Federal Register (70 FR 33753). In response to the Federal Register notice, the BLM received 20 nominations, which were reviewed by a multi-agency and academic interdisciplinary team. The review considered the potential of the proposals to advance knowledge of effective technology, economic viability and the means of managing the environmental effects of oil shale development. Based on the review, the BLM issued, after preparing environmental assessments for each accepted

proposal, six “first round” R, D and D leases—five in Colorado on January 1, 2007, and one in Utah on July 7, 2007. Lessees have ceased operations on all five of the “first round” Colorado leases. The Utah lessee is continuing testing and research for the potential production of oil shale resources.

Second Round

The BLM issued a second Federal Register notice calling for nominations for oil shale R, D and D leasing on November 3, 2009 (74 FR 56867) and received three nominations—two in Colorado and one in Utah. The three nominations were reviewed by a multi-agency and academic interdisciplinary team. The review considered the potential of the proposals to advance knowledge of effective technology, economic viability and the means of managing the environmental effects of oil shale development.

On October 19, 2010, the proponents were notified that all three nominations adequately addressed the evaluation criteria, and that their nominations would be forwarded for National Environmental Policy Act (NEPA) review. The Utah nomination was canceled and the case closed on December 7, 2012, because the proponent failed to initiate NEPA review. The two Colorado tracts were evaluated under NEPA, and two leases were subsequently issued on December 1, 2012. One of these 2nd round leases was relinquished in November 2015.

At present, therefore, there are five inactive oil shale R, D and D leases, and two active R, D and D leases (one in Utah from round one, and one in Colorado from round two).

II. Discussion of Comments on the Proposed Rule

The BLM received over 40 unique comments on the proposed rule, which included comments from state and local governments, non-governmental organizations, including energy and oil shale trade associations, environmental organizations, R, D and D lessees, and private citizens.

General Comments and Cross Cutting Comments

The BLM received comments both supporting and opposing the proposed rule. We summarize and respond to general and cross-cutting comments here, and address comments on individual sections of the rule later in this preamble.

Purpose and Effect of the Rule

Several commenters supporting the proposed rule emphasized the importance of strengthening environmental protection requirements relating to oil shale leasing and development. Some commenters argued the proposed rule was necessary but did not go far enough to improve the 2008 rule, and urged the BLM to require additional environmental protections.

A few commenters stated that oil shale industry circumstances have not changed since the issuance of the 2008 final rule, and agreed with the BLM's characterization that oil shale remains a nascent industry. Other commenters asserted that the BLM's portrayal of an oil shale industry that is still in its infancy is inaccurate and misleading. One commenter quoted statements from the preamble that it asserts are inaccurate and should be corrected, and claimed that the BLM has in its possession data submitted by the commenter that demonstrate oil shale development is commercially viable. An Oil Shale R, D and D lessee asserted that it has a long history of successful commercial oil shale production, which includes commercially proven technology, allowing oil extraction from fine oil shale particles.

We note that progress has been made by R, D and D lessees, but that no R, D and D lessee has yet achieved production of commercial quantities on its R, D and D lease. Although it has long been known that hydrocarbons can be extracted from oil shale, we have seen no evidence that commercial production has been achieved. We know that oil shale has been used as a fuel in other countries, but it has not been commercially produced in the United States. Production viability requires evidence of a commercial-scale operation that produces more revenue from arms-length transactions than its operating costs.

Several comments asserted that the settlement agreement was driving policy decisions to contravene the letter and spirit of the EP Act. One comment stated that a settlement agreement which involves subsequent review processes cannot and does not

control the BLM's ability to make proper policy in the establishment of a viable commercial oil shale leasing program. Another comment claimed that U.S. policy in recent years has been driven in large part by litigation and settlement agreements with groups opposed to oil shale development. Similarly, some commenters argued that proposing regulatory amendments in settlement of litigation so as to alter the terms of existing leases in a manner that violates the future guaranteed rights under the terms of existing R, D and D leases would violate the prohibition on retroactive rulemaking. One commenter stated that the BLM cannot engage in prejudiced rulemaking, as Federal courts have consistently emphasized that the purpose of procedural rulemaking under the Administrative Procedure Act (APA) is to ensure that an agency maintains a flexible and open-minded attitude.

The "administrative agencies have an inherent authority to reconsider their own decisions, since the power to decide in the first instance carries with it the power to reconsider." Trujillo v. General Elect. Co., 621 F.2d 1084, 1086 (10th Cir. 1980). Federal agencies routinely propose amendments to regulations in response to their internal factual or policy analysis, in response to concerns express by outside parties, or in settlement of litigation. E.g., Turtle Island Restoration Network v. Dept. of Commerce, 672 F.3d 1160, 1168 (9th Cir. 2012) (the APA does not prohibit an agency from entering into a consent decree to reopen a rulemaking even in the absence of new facts or science). Moreover, as a practical matter, the settlement agreement related to the 2008 rule did not prescribe the outcome of this rulemaking. On the contrary, as described below, the BLM did not go forward with a final rule that mirrors the proposed rule

amendments, because the BLM properly considered the public comments and conducted its own internal review prior to formulating this final rule. See, e.g., Federal Express Corp. v. Mineta, 373 F.3d 112, 120 (D.C. Cir. 2004).

Several commenters compared the proposed rule to the 2008 regulations, and argued against amending the 2008 oil shale regulations. In their view, the 2008 regulations implement the EP Act's mandate to encourage the development of oil shale while ensuring a fair return to the United States, but the proposed rule would fail to accomplish that mandate. Several commenters claimed that the proposed rule would create new uncertainty in the leasing process. Commenters also contended that the proposed regulatory provisions impose new, unnecessary, and vague regulatory requirements.

Several commenters requested the BLM to withdraw or vacate the proposed rule. Several commenters asserted that the proposed rule contains no explanation for any of the proposed revisions and contains no scientific or technical information to support the proposed policy changes that are restrictions and limitations. Similarly, several commenters argued that the proposed amendments lack factual, legal, or policy justifications, and argued that the proposed amendments were contrary to the APA. A few comments claimed that the proposed rule represents an effort on the part of the BLM to discourage any investment in oil shale resources. Another comment characterized the proposed rule as an effort by the BLM "to insert additional, broad and unnecessary administrative discretion into almost every step of the leasing process." In

expressing the concern shared by several commenters on the potential negative impact of the proposed revisions on oil shale leasing or development, a comment stated “[t]he changes will dramatically alter the technical approaches, regulatory strategies and cost analyses used by operators, and will disproportionately influence the availability of capital resources in the marketplace, which will almost certainly discourage rather than encourage development of oil shale resources.” Another comment stated that the BLM has failed to take into account the socio-economic impacts of proposed revisions and that it is not in the best interests of the U.S. and States to actively dissuade an industry that could bring hundreds of jobs, generate millions in revenue, and make a valuable contribution to our nation’s energy strategy.

The BLM disagrees with these comments. The proposed revisions were not designed to deter oil shale development, nor to circumvent the requirements of the EP Act. They would not have the effect of stifling otherwise viable oil shale leasing and operations, and would not have any negative socioeconomic impact. The BLM takes seriously its duties under statutes, including the EP Act. The EP Act declares as one of the policies of the United States, that the commercial development of oil shale should be conducted in an environmentally sound manner, using practices that minimize impacts. 42 U.S.C. 15927(b)(2). The final rule amends the 2008 regulations consistent with that policy and with the mandate to encourage development and assure a fair return to the United States. The EP Act does not guarantee that rules for oil shale will never change. Furthermore, the APA does not restrict Federal administrative agencies from making

revisions to their regulations. The BLM addresses additional justifications for the final revisions in the section-by-section analysis.

A few commenters also claimed that the proposed revisions duplicate existing statutory and regulatory requirements and BLM processes, add excess regulatory burden to current and future oil shale operations, and discourage development of an industry that could be a tremendous economic benefit to a local community.

The BLM does not agree that the provisions in this final rule duplicate existing regulatory provisions elsewhere in the oil shale leasing regulations or add excess regulatory burden. Requiring more information about operators' plans for reducing risks to the environment is necessary to comply with the BLM statutory obligations to analyze impacts under NEPA, to promote multiple use and sustained yield of the public lands, and to prevent unnecessary or undue degradation under Section 302(b) of the FLPMA, and is consistent with Federal policy that the commercial development of oil shale should be conducted in an environmentally sound manner, using practices that minimize impacts, as announced in the EP Act. Moreover, operators would very likely need to provide the type of environmental information required by this rule as part of the NEPA analysis, even absent the new requirements.

It is also important to note, however, that the BLM has modified the amendments it is adopting in the final rule, compared to the proposed amendments, in response to some of these comments. The final rule is consistent with the Secretary's existing

discretion, specifies information that is necessary to complete the BLM's duties under NEPA, and maintains flexibility to set royalty rates that would encourage production and assure a fair return to the United States.

One commenter stated that the BLM failed to consult with the Governors of Utah, Colorado, and Wyoming, as it did when developing the 2008 final rule. The BLM values the views of the Governors, and particularly those in directly affected States, and we welcome their input to the rulemaking process. The BLM has ongoing relationships with Governors and engages in substantial informal outreach, as well as considering any formal comments submitted. Indeed, when developing the 2008 rule to establish the oil shale program, we held "listening sessions" with Governors' representatives from Colorado, Utah, and Wyoming to provide them the opportunity to share their ideas, issues, and concerns relating to the proposed oil shale leasing regulations. There is no requirement, however, for a separate formal consultation process with State Governors when developing or amending Federal regulations.

Another comment claimed that BLM failed to adhere to the mandates of Section 7 of the ESA due to its failure to consult with the U.S. Fish and Wildlife Service regarding the impact of the commercial leasing regulations on endangered and threatened species. The comment further maintained that the consultation mandate is triggered when there is an agency action that may affect a listed species or a designated habitat, noting that the allocation of land and promulgation of regulations are twin components that establish the BLM's commercial leasing program, and that commercial development of oil shale

cannot proceed without both being in place. In the commenter's view, each negative impact on listed species and critical habitat documented in the PEIS is equally attributable to the promulgation of the commercial leasing regulations. The comment referenced the black-footed ferret and Canada lynx as among the mammals that could be affected by oil shale development due to impacts on habitat, human disturbance, etc.

The BLM appreciates the concern for listed species and critical habitat associated with the comment, but disagrees that this rulemaking requires Section 7 consultation under the ESA. The oil shale regulations authorized by Section 369 of the EP Act serve as the framework for the commercial leasing program and are primarily procedural. The Secretary of the Interior has been authorized to lease lands for oil shale development since 1920, and that authority is not dependent on the existence of regulations governing the leasing or development process. This rule does not create any legal right that would allow ground-disturbing activities without further agency decision-making and compliance with applicable statutes, including the ESA and NEPA. If in response to a future call for nominations, an application for a lease, license, or other authorization is received by the BLM for lands identified as available for oil shale, the BLM will initiate procedures to comply with Section 7 of the ESA.

Several commenters argued that regulatory predictability is essential for attracting investment in Federal oil shale resources, and that the proposed rule would improperly erode that predictability.

The BLM appreciates the concern expressed in the comments. However, we have concluded that the final rule would not significantly affect industry decisions to pursue commercially viable oil shale operations on Federal lands. While regulatory certainty reduces one element of risk associated with investment decisions, in the case of oil shale investments under the final rule, the degree of uncertainty associated with the flexible royalty rate is very small, particularly as compared to the other risks associated with large capital investments in a new industry. Finally, if commercial oil shale operations materialize, it is highly unlikely that operators would avoid Federal lands due to the amendments in this rule. Mineral development companies must go where the minerals are, and the best oil shale deposits in the U. S. are located in part on BLM lands in Colorado, Utah, and Wyoming.

Unacceptable Environmental Risk (UER)

Under Section 302(b) of FLPMA, the statutory environmental standard for all actions that the BLM authorizes on the public lands is that BLM must prevent “unnecessary or undue degradation.” The R, D and D leases, though, contain a decision-making standard of no “unacceptable environmental consequences” (UEC). Derived from a court decision construing NEPA, that standard was intended to prevent unnecessary or undue degradation. In the settlement agreement, the BLM agreed to propose an “unacceptable environmental risk” (UER) standard in three paragraphs of the rule, but requested comments about whether UEC or another standard would be more appropriate.

The proposed rule would have added to sections 3925.10(a), 3931.10(e), and 3926.10(c)(6), a requirement that the BLM determine that oil shale operations could occur without UER. See 78 FR 18551. The proposed rule also requested comment on whether the final regulations should adopt any environmental standard at all. See 78 FR 18552. The BLM has decided not to adopt an additional environmental standard for decision making in the final regulations, but simply to continue to implement its existing authority under FLPMA. Thus, the final rule includes an explicit acknowledgment that the BLM may deny, require a modification of, or condition a POD to protect the environment or other natural resources.

The BLM received numerous comments on the proposed UER and UEC standards. Although a few comments supported the BLM's adoption of the UER standard when exercising its discretion, the majority of comments were opposed. Many comments argued that the UER standard lacks a statutory basis and a clear definition. Several comments noted that the BLM acknowledged in the proposed rule that if adopted, UER would be "likely to evolve with its application."

A commenter in support of the proposed UER standard noted that oil shale is a nascent industry and argued that all the uncertainties that exist, ranging from environmental impacts to appropriate mitigation measures, call for the BLM to retain regulatory authority to deny permits in order to protect public land and natural resources. According to the commenter, the UER standard "grants the agency the greatest latitude to safeguard the public interest." Also expressing preference for BLM's adoption of the

UER standard, another commenter stated that, given the broader latitude provided by the UER standard, it is preferred over the adoption of UEC, but that in either case, the final rule should include one of the two standards.

Several comments opposed to the BLM's adoption of the UER standard asserted that the UER standard is not explained or justified, and thus that its application could lead to arbitrary and highly subjective decisions. A commenter opposed to the adoption of the UER standard stated that Federal agencies have the duty to follow their own regulations, procedures, and precedents, or to provide a rational explanation for failure to do so. Another commenter claimed that in addition to exceeding BLM's statutory authority, UER is duplicative of existing standards, and creates confusion and uncertainty that will negatively impact future oil shale development. A few comments noted that the NEPA process serves to evaluate and identify the potential environmental consequences of a particular project. Another commenter asserted that since NEPA compliance is a well-established process that Federal agencies have been using for decades, it provides more reliability than the vague new UER standard. In focusing on the relationship of UER to FLPMA, another commenter stated: "As proposed, this new standard would be elevated over the FLPMA multiple use balancing process in a manner that establishes a veto for oil shale development by precluding lease issuance or conversion where a subjective qualitative UER determination is made."

Some commenters opposed to both the UER standard and UEC also noted that either standard would shift the burden to the proponent. Another commenter emphasized

that “if the phrase is to carry any weight, the BLM is required to give applicants clear direction on the standards for compliance, any information required and criteria for evaluation, in order to avoid an arbitrary and capricious decision.”

The BLM may not implement a regulatory standard that is less protective of the public lands than the statutory “unnecessary or undue degradation” standard, and the BLM has considerable discretion in applying the unnecessary or undue degradation standard. From the comments it is evident that including a different standard in the regulations, such as UER or UEC, would not add clarity, but would cause uncertainty and lead to disputes. The costs of uncertainty for operators, the public, and the BLM weigh against including a standard such as UER or UEC. Thus, the BLM will make decisions about oil shale on the public lands to meet existing statutory goals and requirements, including promoting the use of public lands for energy development, preventing unnecessary or undue degradation, and managing for multiple use and sustained yield. The final rule does not include the UER standard in any paragraph.

“Will” versus “May”

The proposed rule would have substituted the word “may” for the word “will” in sections 3925.10(a) and 3926.10(c) to clarify that issuing a lease and converting an R, D and D lease are discretionary actions, rather than mandatory.

The BLM received several comments on the proposal to substitute the word “may” for the word “will” in these sections. The majority of the comments were opposed

to the word substitution, with several commenters asserting that the proposed change would not provide the certainty that the program needs with regard to BLM leasing decisions. A few commenters expressed concern that the proposed change in wording from “will” to “may” in paragraph 3925.10(a) appears to provide the BLM with unfettered discretion with respect to whether to award a lease to a high bidder who has otherwise been found to be qualified under 3924.10(d). A comment characterized the proposed word change as “a substantive change in tone that at least psychologically makes the commercial lease process more arbitrary.” Another commenter argued that the change in wording would undermine the integrity of the leasing process as well as discourage prospective lessees from participating in the process and expending enormous capital investments.

The comments in favor of the change in wording maintained that the proposed revision was appropriate, as it reflects that lease issuance is discretionary as opposed to mandatory.

Upon further consideration of the proposed revisions to substitute the word “may” for the word “will” in sections 3925.10(a) and 3926.10(c), the BLM has decided not to adopt the proposed revisions. Therefore, in this final rule the word “will” remains in the regulatory text of both sections. Up until the point at which a mineral lease is issued, the BLM has the authority to decide not to issue the lease, and keeping the word “will” does not affect this discretionary authority. In addition, keeping the 2008 wording maintains consistency, as regulatory provisions in other BLM minerals programs contain the word

“will” or “shall” as opposed to the word “may” in sections addressing the issuance or award of a lease. See 43 CFR 3120.5-3(b), 3422.4(a), and 3508.12(d). Finally, the wording in the 2008 rule clarifies that if the BLM issues a commercial lease at all, it will issue it to the highest qualified bidder offering at least Fair Market Value (FMV), or to an R, D and D lessee that has fulfilled the requirements for conversion.

Environmental or other resource considerations

The proposed rule would have expanded paragraphs (a) and (c) of section 3926.10 to clarify that the BLM may, in its discretion, deny an application to convert an R, D and D lease to a commercial lease based on environmental or other resource considerations. The proposed rule would have also added substantially similar language for approval of PODs in section 3931.10(g). Although the preamble discussion listed some examples of “other resource considerations,” it stated that it may be helpful to further define the term and requested comment on the phrases or any other language that may add clarity to the term.

Several comments claimed that the BLM failed to adequately justify expanding its discretion “to deny an application to convert based on environmental or other resource considerations.” One commenter stated: “BLM must provide a clear unambiguous delineation of all the factors for such a denial, not rely on such vague terminology.” Another commenter asserted that the proposed changes would alter the terms of existing R, D and D leases and undermine the integrity of the leasing process, citing various Federal court decisions holding that an agency may not promulgate retroactive

rulemaking. Another comment further stated that while the preamble to the proposed rule lists examples of “other resource considerations,” at a minimum the BLM should clarify that other resource considerations must be environmental in nature, specific to the site in question, and directly related to the project, because otherwise, this concept opens projects up to an endless range of possible objections. The BLM agrees that “other resource considerations,” as proposed, is too broad, and agrees in part with the commenter’s recommendation.

In light of these comments, we have modified the language in the final rule slightly to provide that a denial must be based on “environmental or natural resource impacts.” The reference to “natural resource” includes values that might not be considered “environmental,” such as recoverability of other minerals, or impacts to grazing.

It is important to understand that the purpose of the amendment to paragraph (a) of section 3926.10 is to provide better notice of the types of impacts that need to be mitigated in order for the BLM’s approval of a conversion application to comply with the mandates of FLPMA (manage for multiple use and sustained yield, and prevent unnecessary or undue degradation), and the policies of the EP Act (oil shale should be developed in an environmentally sound manner, using practices that minimize impacts, with an emphasis on sustainability). The “unnecessary or undue degradation” standard is intended to prevent negative impacts that could reasonably be mitigated, but are not.

R, D and D lessees beginning to prepare an application to convert to a commercial lease should work with the BLM early to identify potential impacts and reasonable mitigation measures. Accordingly, the final rule modifies the proposed rule, and amends section 3926.10(a) by adding the following sentence: “The BLM may, in its discretion, deny an application to convert an R, D and D lease to a commercial lease because of impacts of the proposed commercial operation on the environment or natural resources.”

Similarly, the proposed rule would have amended section 3931.10 by adding a new paragraph (g) to make it clear that the BLM may deny a POD based on environmental or other resource considerations, or the BLM may require a modification of, or condition, a POD to protect the environment or other resource considerations. The same concerns about the phrase “other resource considerations” discussed in the context of section 3926.10 also apply to the use of that phrase in 3931.10. Accordingly, the final rule modifies the proposed rule, and amends section 3931.10 by adding the following new paragraph (g): “The BLM may deny a POD because of impacts of the proposed commercial operation on the environment or natural resources. The BLM may require a modification of, or condition the POD to protect the environment or other natural resources.” The proposed amendment to section 3931.10(c) is addressed separately below.

III. Section by Section

Section 3903.52 Production royalties.

The final rule amends this section to provide some administrative flexibility in royalty rates by designating the royalty rates set by the final 2008 rule as minimum rates and providing that the royalty rate will be set on a lease-by-lease basis in the notice of sale or at the time of R, D and D lease conversion.

The EP Act (Section 369(o)) directs the agency to establish royalties and other payments for oil shale leases that “shall:

- (1) [E]ncourage development of the oil shale and tar sands resource; and
- (2) [E]nsure a fair return to the United States.” (42 U.S.C 15927)

The BLM expects that the market price of oil shale resources, relative to the price of competing sources (e.g., crude oil) of similar end products, will determine the level of any future oil shale development. The various payments required to obtain, hold, and produce on a Federal oil shale lease may also affect the lease’s development potential. The lower those payments, the less likely those costs will adversely impact the lease’s development potential. Thus, the government could provide some additional incentive for development by lowering royalty rates for oil shale relative to conventional oil and gas royalty rates. A reduction in royalty rates cannot, however, make an uneconomic operation financially viable.

Incentives for development must be balanced against the other EP Act objective of providing a fair return to the United States for these resources. In the context of this regulation, fair return is considered the functional equivalent to FMV. A property’s FMV

is based on the appraisal concept that it is the price a property would sell for, given a knowledgeable and willing, but not obligated, buyer and seller. FMV is intended to be an estimate of the price that would be realized in a free and efficient market transaction. When estimating a property's FMV, the BLM has generally focused on the bonus bid, assuming all other factors, including rent and the royalty rate, to be held constant. However, in making a determination about what royalty rate would ensure a fair return, other financial terms, including rent and the bonus bid, must conceptually be held constant.

Generating FMV estimates for mineral properties generally relies on two appraisal techniques: the comparable sales approach and the income approach. The comparable sales approach is dependent on available data on market transactions for the specific mineral (oil shale) properties. The income approach is dependent on the availability of salient cost and revenue data associated with development and production of the resource.

The BLM extensively discussed the issue of the royalty rates for commercial oil shale production in the preamble to the 2008 oil shale rules. See 73 FR at 69419-69429. That rule set the royalty rate at 5 percent for the first 5 years of commercial production, and increased it by 1 percent each year starting with the sixth year of commercial production, reaching a maximum royalty rate of 12.5 percent in the thirteenth year of commercial production. However, as noted earlier in this preamble, the 2008 rule was challenged in court and a settlement agreement was reached to revisit several aspects of

the existing oil shale rule, including the royalty structure. In particular, in this rulemaking, the BLM has considered how different royalty terms would meet the two objectives required by the EP Act (Section 369(o)): to encourage development of the resource and to ensure a fair return to the United States.

In revisiting the royalty provisions, the BLM, in accordance with the settlement agreement, proposed to remove the royalty terms currently in section 3903.52(b) and requested comment on several different options for establishing the royalty rate. These options included:

- Invite public comment on the proposed royalty rate in the proposed notice of sale or R, D and D lease conversion, with a minimum 30-day comment period and 60 days between proposed and final notices of sale;
- At least 30 days before the notice of sale, invite public comment on the fair market value of and expected recovery from the oil shale lands proposed to be offered for lease, and on what royalty rate and other lease terms or stipulations commenters believe should be required;
- Adopt a two- or three-tiered sliding scale royalty rate tied to the market prices of oil and gas over a certain period of time; and
- Set a 12.5 percent minimum royalty rate with Secretarial flexibility to establish a higher royalty rate later, with a minimum 30-day comment period and 60 days between proposed and final notices of sale, in cases where higher rates are established.

The preamble to the proposed rule invited comments on variations of the four options listed above, including setting a minimum royalty rate as part of Options 1 and 2, or not setting a minimum royalty rate, as well as any other royalty system that would meet the dual requirements of the EP Act to encourage development and ensure a fair return to the United States.

Several commenters asserted that the various royalty options outlined in the proposed rule, including the 2008 requirement, do not guarantee a fair return to the government. Another commenter supported the concept of deferring the royalty rate decision until the lease sale or R, D and D conversion, asserting that the BLM does not currently have enough information to establish an appropriate rate. Several other commenters suggested the 2008 royalty structure encourages development by starting with a lower rate, 5 percent, and gradually increasing the rate. This approach applies a lower rate early in the resource development process when development costs are highest and potential revenues are lowest. Other commenters expressed strong support for the 2008 royalty structure, as discussed in more detail subsequently.

We agree that these are valid and important points, and the approach to the royalty rate in the final rule responds to each of these comments.

First, the BLM agrees that it is critical to establish a royalty rate based on reliable and relevant information. This provides the best opportunity to meet the twin statutory goals of encouraging oil shale development and achieving a fair return, consistent with

the BLM's other statutory responsibilities. As discussed above, however, we currently do not have information that demonstrates that the technology exists to economically produce synthetic oil from oil shale, and thus reliable capital and operating cost data are not available. Without that data, we do not have reliable estimates of the processing cost difference between oil production from oil shale and conventional crude oil production. Since 2008, as technologies such as advances in hydraulic fracturing and directional drilling have made available vast new lower cost oil supplies, the economics of oil shale production have only become more uncertain.

This rulemaking has not produced adequate and reliable data, and there are currently too many unknowns about the oil shale industry to make an informed decision on the appropriate royalty rate to be applied to potential future synthetic oil production from oil shale. If the royalty rate(s) are set too high, that higher cost could discourage development of the oil shale resources. If the royalty rates are set too low, however, the American people would not receive a fair return. For example, if the industry were to develop a highly efficient and cost effective technology for producing synthetic oil from oil shale, then there could be immense private profits from Federal oil shale leases without a fair return to the American people. Very low royalty rates could also result in effectively subsidizing an economically less viable source of fuel at the expense of crude oil development. To the extent that very low royalties for oil shale encourage a shift in investment from crude oil development to oil shale development, the net result would be a lower overall return for the American people, which clearly would not meet the EP Act requirement for a fair return. Thus, we believe it is appropriate in the final rule to

provide the Secretary with discretion to determine an appropriate royalty rate at the time of a specific commercial project, when more reliable information is expected to be available.

We do not believe, however, that the Secretary's discretion must be entirely unbounded. We also concur with the commenters' observations that the tiered approach in the 2008 rules supports development, with a lower rate early on in an operation's development. This was the approach used in the State of Utah's oil shale leases, which the BLM used as a model for the 2008 rulemaking. Thus, our second conclusion is that a tiered approach to royalty rates is appropriate.

Third, we do not have information indicating that the specific royalty rates established in 2008 are too low. The broad support for these rates from industry commenters indicates that the industry views the 2008 royalty rate structure as appropriately supportive of development. In addition, we have concerns about potential market distortions with very low royalty rates (e.g., lower than 5 percent), leading to lower returns for the American people. These considerations support retaining the 2008 royalty rates in the final rule as minimum rates.

In summary, in the absence of cost data, as well as of other information about the technologies to be deployed and the potential impacts of the commercial development on the environment and the community, we do not have sufficient information to make a definitive determination at this time that a starting rate of 5 percent or a maximum rate of

12.5 percent would be sufficient to ensure a fair return to the American people or meet the BLM's statutory responsibilities. We do believe, however, that rates below these levels would not be sufficient to ensure a fair return to the American people. We also conclude that maintaining the 2008 royalty rate structure in the final rule is helpful in bounding the Secretary's discretion, providing a starting point for analysis, and reducing industry uncertainty. Thus, the final rule provides the BLM with the flexibility to set the royalty rate on a lease-by-lease basis. The rule also provides for a lower bound on this flexibility and reduces uncertainty by maintaining the royalty rate structure from the 2008 rule, while giving the BLM discretion to set an initial royalty rate above 5 percent as it determines appropriate on a case-by-case basis.

A number of commenters questioned the rationale, justification, and legal authority to change the existing royalty structure. They argued that a settlement agreement should not control the ability to choose a royalty rate. This comment misunderstands the nature of this rulemaking process. The settlement agreement did not dictate the approach or royalty rate selected, but rather sought only publication of a proposed amendment for public comment, and prompted our review of the issue. Based on the comments, and on our independent review and analysis, the BLM concluded that the 2008 royalty approach may not meet the dual objectives required by the EP Act. Although it provided certainty on rates, there was no assurance that the royalty provisions would ensure a fair return to the government. As discussed above, given the state of the industry and technology, we currently have no basis for establishing a specific royalty rate or set of rates that meets the EP Act requirements. Under Federal administrative law,

the BLM's authority to promulgate rules indisputably includes the authority to amend such regulations.

Many commenters suggested that the retention of the 2008 royalty structure was the most appropriate way to encourage development of oil shale resources from public lands, as required by the EP Act (Section 369(o)). They stated that the primary advantage for that approach is the certainty it provides lessees, operators, and investors regarding the royalty rate that will apply to any potential future production. In addition to providing certainty, they asserted that the 2008 royalty rate is more stable, predictable, and workable than the options presented. These commenters argued that, given the numerous unknowns associated with any potential future development of the resource, these factors are critical to encourage development. Commenters also pointed to the analysis prepared by the BLM for the current rule as validation of the 2008 royalty structure.

We agree the 2008 royalty structure does provide an element of certainty; all parties involved know the rates to be applied well in advance of a decision to issue a commercial lease. However, the significance of this certainty as it relates to encouraging oil shale development and ensuring a fair return to the government is less clear. Notwithstanding the 2008 analysis, which highlighted the need for certainty as it related to the royalty rate, there are concerns that caused the BLM to revisit this issue. In particular, the BLM is concerned that there is not sufficient reliable information available to identify an appropriate royalty rate at this time.

The lack of data is due to the apparent absence of a commercially viable oil shale industry. Currently, none of the R, D and D leases issued in 2006 and 2007 have demonstrated a commercially viable technology, and the remaining R, D and D lease issued in 2012 is probably years away from demonstrating a technology to economically develop the resource. Although there is limited domestic activity, oil shale is used as an energy source in a few other countries, including Estonia, Brazil, and China. Estonia, in particular, has a long history of using oil shale as a feedstock in power plants. For example, Eesti Energia (Enefit), Estonia's largest oil shale energy company, is actively involved in oil shale development, including mining, power generation, and synthetic oil production. Enefit's efforts in the development of synthetic oil from oil shale production technology include active production in Estonia and pilot efforts in Jordan and Utah. Despite the company's focus on synthetic oil production from oil shale, the economics of those efforts are not as clear. In 2014, Enefit's Chairman wrote an article about the current and future state of Enefit's oil shale development (Sandor Liive, Chairman of the Management Board, March 3, 2014, www.enefit.com). In the article, the Chairman states, "While the Enefit280 oil plant is not yet working consistently, the successful electricity generation fully compensated for the lacking income from the oil plant." The BLM is not privy to the company's cost and revenue figures for synthetic oil production; however, Enefit's statement strongly suggests that cogeneration of oil is currently being subsidized by ongoing electricity generation.

Although there are entities conducting various types of oil shale development activities, including efforts in the United States, therefore, the BLM does not have data showing that oil shale development is commercially viable at this time. Thus, even though the 2008 royalty rates might be appropriate for the U.S oil shale industry if and when it comes into being, at present the BLM has no basis to make that determination.

Several commenters opined that the 2008 royalty rate for oil shale reflects the disparity in production costs between oil shale and crude oil production.

The 2008 royalty rate structure provides for a lower initial royalty rate than the 12.5 percent rate normally applied to onshore Federal oil and gas leases. As such, the 2008 requirements recognize that synthetic oil production from oil shale will likely have higher costs than crude oil production. However, as stated above, we have no basis to determine if the initial 5 percent rate accurately reflects the cost discrepancy between oil shale and traditional crude oil production. Nor is it clear that the dual goals of the EP Act necessarily should be interpreted to support using the royalty rate to fully offset the cost differential between oil shale and traditional crude production. Thus, as described previously, we have maintained the 2008 approach as a minimum, but added flexibility to allow the BLM to establish a higher initial rate on a case-by-case basis, as it determines appropriate.

We received comments on the various options presented in the proposed rule, including the two options to establish the appropriate royalty rate prior to a lease sale or

conversion (Options 1 and 2). The primary focus of these comments was on the uncertainty such a process would create for potential lessees. The commenters suggest that the uncertainty in the royalty rate does not encourage development of oil shale resources from public lands, as required by the EP Act (Section 369(o)) and, in fact, threatens the economic viability of oil shale development. Under those options, potential developers would have too little information, or the royalty rate information would be available too late to make investment decisions, according to those commenters.

We recognize that the various options presented in the proposed rule do potentially increase the uncertainty involving the applicable royalty rate, and not making the decision on a lease's royalty rate until the lease sale notice or R, D and D conversion could delay information desired by prospective lessees, operators, and investors. Maintaining the royalty structure of the 2008 rule as minimum royalty rates provides for a lower bound on this uncertainty, and to help further alleviate this concern, the BLM will announce the applicable royalty rate at least 60 days in advance of the lease sale or R, D and D conversion.

Commenters also questioned how a lease-by-lease process would work for an R, D and D lease conversion; specifically pointing out that the economic viability of the conversion may be dependent on the royalty rate to be applied. One commenter expressed concern regarding the proposed removal of royalty provisions, as an established royalty rate is a critical component for an R, D and D lessee's ability to show that it has produced commercial quantities. According to R, D and D lease terms as well

as section 3900.2 (definition of commercial quantities), “costs of production” include royalty payments. Without knowing the royalty rate, the commenter argued, an R, D and D lessee cannot know whether it has met the commercial quantities requirement necessary for the BLM to approve leases conversion.

The BLM notes that an operator would have an opportunity to propose a royalty rate for a converted lease at the time it reports data that indicate commercial viability. This approach is similar to how the royalty rate is set for non-energy mineral preference right leases. The BLM will consider the operator’s data and proposal in determining a royalty rate or system that will meet the requirements of the EP Act.

One commenter asserted that the royalty rate in the 2008 regulations is a material term of an R, D and D lease, as Part 1 of the lease incorporates by reference existing BLM regulations, including regulations pertaining to royalty rate. The commenter also claimed that the proposed removal of the royalty rate would be contrary to the APA, as it would effectively revoke the existing royalty provisions without explanation.

The BLM disagrees. The original R, D and D leases were issued prior to the 2008 oil shale regulations, and thus before any royalty rate was promulgated. The original R, D and D lessees also have the option provided under Addendum 1 to their leases, which allows them to elect to have their commercial operations governed under the 2008 oil shale regulations. The remaining second round R, D and D lessee knew it had no such option in its lease. That lease guarantees no specific royalty rate for a converted

commercial lease. No R, D and D lessee has a contract right that prevents the BLM from amending the regulations regarding the royalty rates.

Commenters pointed out that the lease-by-lease process has the potential to result in oil shale leases having different royalty rates depending on the analysis performed prior to a lease sale or conversion. Those commenters argue that such an approach would be discretionary and unpredictable, and could create a competitive advantage or disadvantage for various lessees.

We agree that the option to set the royalty rate on a lease-by-lease basis has the potential to result in differing rates for leases, but we do not agree that this outcome is a significant concern. Consideration of differences in the capital and operating costs, market forces, or other factors, will reduce any economic advantage or disadvantage among lessees. However, as the industry matures and we are privy to information needed to make an informed decision concerning the royalty rate, we anticipate rate differences between new leases would be less likely to occur. For existing leases, it is possible that the disparity that might occur with the rates for new leases could put existing operations at a competitive disadvantage or advantage. As part of the lease readjustment process (section 3932.40) the BLM may make adjustments to the lease terms, including the royalty rate. In an extreme situation, the lessee could request a royalty rate reduction as provided in existing section 3903.54.

Commenters also questioned the legality of having different royalty rates for different leases, stating that it would violate Henry v. Immigration and Naturalization Serv., 74 F.3d 1,6 (1st Cir. 1996). While the BLM acknowledges that one of the main holdings of the referenced 1996 Federal court decision is that administrative agencies must apply the same basic rules to all those who are similarly situated, as long as the BLM applies the same criteria in setting royalty rates, it would not violate the court's decision. Setting royalty rates lease-by-lease has been successful in other programs. Royalty rates are contract terms and conditions. No court decision has held that all mineral leases must contain the same financial terms. Potential bidders for leases can decide whether to accept the royalty rate, or to adjust bonus bids to compensate for royalty rates. The BLM did not revise the final rule as a result of these comments.

Several commenters asserted that modeling the process for establishing a royalty rate after the process used in coal lease sales (Option 2) was inappropriate given the fundamental differences between coal and oil shale, specifically noting that there is not sufficient competition for oil shale leases to mimic the coal leasing process. Commenters also suggested that such a process was unnecessarily burdensome. The BLM agrees. The final rule does not adopt the process used in coal lease sales as described in Option 2 in the proposed rule.

Specific to Options 1 and 2, some commenters questioned the value of soliciting input from interested parties because those commenters believe that few entities will be able to comment on fair market value or maximum economic recovery on oil shale

leasing. While there may be value in allowing for input from interested parties, these approaches add considerable complexity and time to the process, and the final rule does not adopt either of those options.

Several commenters suggested that a lease-by-lease process would discourage leasing and could result in no bids for the oil shale leases. As discussed earlier in this preamble, the uncertainty accompanying a lease-by-lease process could have some effect on interest in oil shale development, but we do not believe that effect would be significant. The commenters did not provide any information to support their claim that a lease-by-lease process for determining the royalty rate would discourage leasing, much less result in no bids for oil shale leases. Understandably, if the rate is set too high, this could discourage leasing and eventually development, but that is a function of the specific rate set, not the structure that allows for lease-by-lease royalty rates. Moreover, other mineral programs, such as non-energy solid minerals, have successfully applied lease-by-lease royalty rates. Finally, the reason for establishing the royalty rate at the time of the lease sale or R, D and D lease conversion is to make sure that lease term decisions, including the royalty rate, are made with the best available information in hand.

One commenter stated that there is no authority to make the fair market value determination confidential. The confidentiality of BLM's fair market value determinations is outside the scope of the rulemaking.

The BLM received a wide range of comments on the option of setting the royalty rate using a sliding scale (Option 3). Several commenters suggested that the sliding scale option, as defined, is vague and unclear. They argued that they needed more specifics of a sliding scale option to reasonably offer comments. Some commenters suggested such an option had merit, but depended on the specifics, such as the minimum royalty rate. Other commenters asserted that the sliding scale option lacks reliability and certainty needed to make investment decisions. They stated that the royalty rates need to be defined in regulation, otherwise a sliding scale royalty adds to uncertainty, which they believe is not conducive to encouraging oil shale development. Several commenters suggested that Option 3 is complicated, cumbersome, and burdensome, and is difficult to administer.

We agree with the observation that a sliding scale is a significantly more complex process to administer than the other options presented in the proposed rule. After discussions with the Office of Natural Resources Revenue (ONRR), the BLM opted to not adopt a sliding scale in the final rule due to the administrative complexities, as identified by the commenters.

Several commenters suggested that the royalty rate be set at 12.5 percent, the same rate as in BLM's oil and gas program. The main argument presented in support of a 12.5 percent royalty rate is that the primary products produced from oil shale will compete directly with those from onshore oil and gas production, which for onshore Federal oil and gas leases predominately have a 12.5 percent royalty rate. The

commenters argued that establishing the same royalty rate for competing products is the only way the BLM can ensure a fair return to the United States, as required by EP Act (Section 369(o)). Several other commenters opposed a 12.5 percent royalty rate, and argued that a 12.5 percent rate does not recognize or account for the significant investment and operating costs associated with oil shale development. As such, they claimed, it is unworkable, would discourage investment, and is inconsistent with the EP Act (Section 369(o)) requirement to encourage development of the resource.

A 12.5 percent royalty rate is a common rate applied to many Federal leases, including onshore oil and gas leases. While we agree that it is appropriate to consider the royalty rate applied to a competing product, we do not agree that the appropriate royalty rate for oil shale necessarily must equal the royalty rate applied to crude oil leases. For example, the royalty rate for Federal coal mined by surface-mining methods is 12.5 percent, but the rate for underground-mined coal is 8 percent to reflect the much higher production costs incurred in underground mining. There are significant differences between oil shale mineral deposits and a conventional crude oil reservoir. Oil shale is a class of rocks such as marlstone containing not oil, but kerogen. Oil shale is not any of the shales or “tight” formations found in many parts of the United States that contain oil or gas that can be produced by hydraulic fracturing. All known technologies to convert the kerogen to liquid hydrocarbons require significant amounts of energy. Publicly available information affirms that producing synthetic oil from oil shale is more expensive than producing conventional oil and gas and the cost of production should be considered. In addition, the relevant statute specifically directs the BLM to establish a

royalty rate that encourages development of the resource, as well as providing a fair return to the American people.

The final rule allows the BLM to establish a royalty rate for oil shale production that accounts for the potential capital and operating costs associated with developing the resource and processing the extracted material into marketable product. As discussed above, the record does not document any demonstrated technology to economically produce synthetic oil from oil shale, much less salient cost data. However, available information does suggest the cost to produce synthetic oil from oil shale far exceeds the current cost to produce crude oil. Allowing for an initial rate as low as 5 percent adjusts for this cost differential as it exists today.

Several commenters suggested the Secretary should have the authority to establish a royalty rate above a minimum 12.5 percent rate (Option 4). The commenters' rationale for applying a rate higher than 12.5 percent is that it would be necessary to compensate for governmental cost and environmental considerations associated with oil shale development. Commenters suggested factors that need to be considered in setting the royalty rate, including the cost to local communities to provide the infrastructure and services and the impact of greenhouse gas emissions. Commenters suggested that environmental impact significance should factor into a higher rate.

As discussed earlier, the final rule allows the Secretary to exercise her discretion on a lease-by-lease basis to set royalty rates that could ultimately exceed 12.5 percent.

The final rule does not conclude at this time whether and when a higher rate might be appropriate, leaving that to be determined based on the specific circumstances of a particular lease. Factors that could be considered in such a determination include the costs and returns of the proposed commercial operation, as discussed earlier, as well as the specific technologies to be deployed and the impacts of the operation on the community and the environment. By statute, royalty revenues are required to be divided among the Federal Treasury and the states (30 U.S.C. 191). While Federal law does not speak to how states may use their share of mineral royalties, a higher royalty rate could make additional funds available to a state for community or infrastructure support.

We received several comments suggesting the BLM needs to account for technological, processing, and cost factors in establishing an appropriate royalty rate. The BLM will factor in capital and operating costs in setting the rate. Other than their costs, the technology or process has not usually been considered in establishing a royalty rate. Regardless of whether they factor into establishing a royalty rate, the specific processes to be employed are considered in assessing the potential impacts and appropriate mitigation measures.

A commenter suggested that a single established royalty rate is the only reasonable and legally supportable option. Although we do not agree that a single rate is the only option, we do recognize that a single rate simplifies the process for prospective lessees, investors and operators. As the commenter did not elaborate on this opinion, it is

difficult to respond to the concerns about reasonableness. The commenter did not provide support for its legal argument, and we can find none.

One commenter stated that the BLM should wait to amend the royalty rate until the ONRR issues royalty valuation regulations. Royalty valuation is an important consideration, as the valuation determination defines the royalty base to which the royalty rate will be applied. Although ONRR recently published a final rule entitled, “Consolidated Federal Oil & Gas and Federal & Indian Coal Valuation Reform” (81 FR 43338 (July 1, 2016)), that rule does not address the valuation of oil shale. Nevertheless, before oil shale leases are required to begin paying production royalties under this rule, the BLM would coordinate with ONRR. The BLM is confident that ONRR will make every effort to ensure that any oil shale valuation is consistent with other valuation regulations.

Some commenters advocated for a royalty based on profit or net income. To implement such a royalty, ONRR would need to establish standard accounting principles for oil shale leases in order to determine profit. Also, to ensure a return to the government, ONRR could require payments if the project is not profitable after a certain number of years. One commenter stated the royalty rate should be 12.5 percent of net profits, with a minimum of 8 percent of the existing price of shale gas. A profit-based royalty would address the differences in technology and costs, but, to implement such a royalty, operators would have to disclose detailed cost and attribution information that they might consider to be an onerous requirement.

The BLM generally avoids using net profit or net income royalties given the significant costs in implementing such schemes. Current ONRR valuation regulations for onshore oil and gas leases are generally based on gross proceeds less allowable costs. A profit-based royalty would be complex and burdensome for ONRR and operators, and would likely lead to disputes and litigation. The BLM has not adopted the commenters' recommendations.

Several commenters were concerned about the impact and legality of potential regulation changes on existing R, D and D leases. Specific terms in existing leases generally prevail over regulatory amendments. This is especially true for the financial terms of leases, including royalty rates, when those terms are established in leases. Thus, this final rule will not change or override specific terms in existing leases.

Several commenters suggested the BLM should adjust the royalty rate and supporting analysis to reflect the current economic realities of oil shale development. Along that same line, another commenter stated the Secretary should have the option of lowering rates if the royalty analysis demands it.

Current market conditions, specifically the price of crude oil, are among the factors limiting the potential for oil shale development. Ultimately, synthetic oil from oil shale will need to compete in the market place with crude oil. However, the recent low crude oil prices have reduced the development potential of both oil shale and crude oil.

As discussed above, the BLM believes that it is appropriate to retain the 2008 royalty rate structure as a minimum, and allow the Secretary to adjust the royalty rate on a lease-by-lease basis based on the lease-specific information.

Several commenters stated that, prior to establishing a new nationwide royalty rate, the BLM needs to follow the formal rulemaking process, thereby soliciting public comment on specific royalty rate provisions prior to adoption of any new rate that would be included in a final rule. The decision in the present rulemaking moots that concern.

Section 3925.10 Award of lease

Section 3925.10(a) currently provides that a lease will be awarded to the highest qualified bidder that meets or exceeds the BLM's estimate of FMV. Proposed changes to this section include several revisions to paragraph (a). Other than the UER and "will versus may" issues previously discussed, the one remaining proposed revision to paragraph (a) would add the requirement that a commercial oil shale lease would be issued only under the procedures in 43 CFR part 3900. That provision clarifies the intent of the 2008 rule that commercial oil shale leasing will be initiated by the BLM, or by conversion of R, D and D leases. We did not receive comments specifically addressing the proposal to clarify that commercial leases would be issued only under 43 CFR part 3900. That proposal prevents the public from being confused by the idea that the leasing process could be initiated by an unsolicited expression of interest. Thus, the proposed language is included in the final rule.

Section 3926.10 Conversion of an R, D and D lease to a commercial lease

Section 3926.10 provides application procedures and requirements to convert R, D and D leases, including preference rights areas, into commercial leases. As previously discussed, the proposed rule included revisions to paragraphs (a) and (c) of this section to clarify that the BLM may, in its discretion, deny an application to convert an R, D and D lease to a commercial lease based on environmental or other resource considerations. As discussed above, the final rule modifies the proposed revisions to paragraph (a) and amends section 3926.10(a) by adding the following sentence: “The BLM may, in its discretion, deny an application to convert an R, D and D lease to a commercial lease because of impacts of the proposed commercial operation on the environment or natural resources.”

The BLM also received a few comments suggesting that the BLM should amend Section 3926.10 to clarify which regulations govern R, D and D leases. One commenter recommended that the section be amended to clarify: (1) What regulations apply to operations on R, D and D lease tracts; and (2) That a lessee may only commercially develop its lease after BLM approves its conversion application. The comment further stated that as written, section 3926.10(a) “is unclear whether this provision is intended to mean that parts 3900, 3910, and 3930 govern the application to convert the R, D and D lease, whether parts 3900, 3910, and 3930 govern operations taking place on the R, D and D lease, both or neither.”

The BLM disagrees that further clarification is warranted. Furthermore, the BLM did not propose to amend the existing section 3926.10(a) other than as described in the notice of proposed rulemaking. Both the existing section and the section as amended by this final rule are clear – the paragraph applies to conversion of an R, D and D lease.

The BLM also received several comments expressing concern about the proposed new second sentence of paragraph (c). That sentence would have repeated verbatim the sentence proposed to be added to paragraph (a): “The BLM may, in its discretion, deny an application to convert an R, D and D lease to a commercial lease based on environmental or other resource considerations.” Our review of those comments and of the proposed amendment persuades us not to include that proposal for paragraph (c) in the final rule. That sentence is not necessary in paragraph (c) because it would have been in paragraph (a). It does not add to the protection of the public lands or provide useful information to operators or the public. It is also misplaced. Paragraph (a) concerns conversion to commercial leases. Paragraph (c) is about the right to include in a commercial lease a preference right area identified in an R, D and D lease. Repeating the sentence in paragraph (c) could cause confusion about whether it applies to the decision about a preference right area. For those reasons, the final rule does not amend paragraph (c).

A commenter argued that in clarifying that a decision to convert an R, D and D lease to a commercial lease is discretionary, the BLM was failing to allow successful lessees to benefit from proving a commercially viable technology. On the contrary, the

R, D and D leases themselves are clear that a decision to convert is discretionary and requires compliance with NEPA. The final rule provides more clarity about how the BLM will exercise that discretion. We agree with other comments that the appropriate stage at which to decide whether a parcel is suitable for development is before it is leased. But we disagree that the BLM must approve any commercial POD regardless of its adverse impacts.

Another comment requested that the BLM require a list of “Lease Conversion Elements” be developed and included in each R, D and D lease conversion application in order to clarify ambiguities and consolidate the requirements. To aid the BLM in developing the requested list, the comment included a suggested list of conversion elements. We thank the commenter, but since the comment is outside the scope of the rulemaking, the final rule does not adopt the request.

One commenter suggested that the BLM should clarify in section 3926.10(b) that an R, D and D lessee cannot commercially develop its leasehold until the BLM approves an application for conversion. The BLM views this comment as outside the scope of the proposed rule, as the BLM did not propose any changes to the regulatory text of paragraph (b). Furthermore, the suggested revision to paragraph (b) is not warranted at this time. In addition to the reports required in the R, D and D leases, we anticipate that R, D and D lessees will want to keep the BLM informed of developments that indicate that an operation may meet the standards for conversion to a commercial lease.

The BLM received a comment encouraging revision of the definition of “commercial quantities” to include the specific consideration of environmental costs in whether the oil shale operation will provide a “positive return.” “Commercial quantities” is defined at 43 CFR 3900.2, and is defined similarly for other resources. *E.g.*, 43 CFR 3430.1-2 (coal preference right leasing). That definition takes into account “all costs of production,” which would necessarily include costs of compliance with applicable environmental regulations. Mitigation for impacts to public lands and associated resources is considered under other sections of the rule, as amended.

This commenter also requested the BLM to amend section 3900.2 to include a definition of R, D and D. A definition of R, D and D is not necessary. The BLM has successfully conducted two rounds of R, D and D leasing in which the public was provided notice in the Federal Register of the terms of the proposed leases. There is no statutory requirement for the BLM to conduct additional rounds of R, D and D leasing, and thus a regulatory definition of R, D and D would be of limited utility. In addition, both of these suggested revisions are outside the scope of the rulemaking. Accordingly, the final rule does not amend section 3900.2 to include a definition of R, D and D or revise the definition of “commercial quantities.”

Section 3931.10 Exploration plans and plans of development for mining and in situ operations

Section 3931.10 provides requirements for submission of exploration plans and PODs. The proposed rule contained revisions to paragraph (e) and would have added a new paragraph (g).

As previously discussed under the subheading “Unacceptable Environmental Risk,” the final rule does not adopt the proposed revision to paragraph (e) that would add a sentence stating that the BLM will not approve a POD unless it determines that operations under the POD can occur without UER.

As previously discussed under the subheading “environmental or other resource considerations,” the final rule includes certain revisions to the proposed paragraph (g). These revisions are consistent with those revisions reflected in section 3926.10 of this rule. Accordingly, the final rule amends section 3931.10 by adding the following new paragraph (g): “The BLM may deny a POD because of impacts of the proposed commercial operation on the environment or natural resources. The BLM may require a modification of, or condition the POD to protect the environment or other natural resources.”

Section 3931.11 – Content of plan of development

Section 3931.11 lists the required contents of a POD. In the 2013 proposed rule, the BLM asked for public comments concerning proposed revisions to this section to include additional information that the BLM would require in a POD. The proposed requirements included submission of a watershed and groundwater-protection plan under

new paragraph (h); an airshed review under new paragraph (i); an integrated waste-management plan under new paragraph (j); and an environmental-protection plan under new paragraph (k). The new requirements are intended to ensure that adequate measures are in place to protect the environment.

A watershed and groundwater protection plan under paragraph (h) requires details on how operations will be conducted in a manner that protects surface and groundwater resources from adverse effects on the quality, quantity, timing, or distribution of water resulting from operations, and how monitoring, adaptive management, and mitigation of adverse impacts will be conducted, both during and after operations.

An airshed review under paragraph (i) is a review of the scientific data and analyses currently available at a reasonable cost relevant to the potential effects of commercial oil shale operations on the air quality of the pertinent airshed. The review requires providing the BLM with adequate information to assess the effects of operations on the airshed.

An integrated waste management plan under paragraph (j) requires information on conducting operations in a manner that minimizes the production of waste, and provides for monitoring, adaptively managing, and mitigating the impacts of waste both during and after operations.

An environmental protection plan under paragraph (k) is a plan to conduct operations in a manner that minimizes the adverse effects of oil shale operations on the quality of the air and water; wildlife and native plants; and productivity of soils, and to monitor, adaptively manage, and mitigate such adverse effects both during and after operations.

These plans and reviews are intended to facilitate both better decisions by the BLM in reviewing proposed PODs, and better environmental performance of operations under an approved POD. These plans and reviews are likely to be necessary to properly analyze a POD under NEPA, and thus would be required pursuant to 43 CFR 3931.11(k) in most if not all cases, even in the absence of the amendments to section 3931.11. Most of those plans and reviews are also necessary to assure that the BLM's decision on proposed PODs complies with the mandates of FLPMA.

In response to the BLM's request for comments concerning the additional information that the BLM would require in a POD, several entities provided comments, some of which supported the proposal and others expressed opposition.

A few commenters expressed their support for the additional planning requirements, viewing them as necessary to ensure the protection of water resources, clean air, and landscapes. One commenter stated that a detailed watershed protection plan can help water providers, agricultural interests, municipalities and others to assess the potential impacts of diversion of large quantities of water for oil shale development.

The commenter said, “Adaptive management, including careful monitoring of success or failure of mitigation efforts, is essential to ensuring the long-term sustainability of fish and wildlife populations in landscapes impacted by development.”

Another commenter suggested that section 3931.11 be further expanded to require lessees to provide detailed information on the water rights to be used for commercial development. Although we agree that all oil shale operators must have applicable water rights acquired before beginning operations, we do not believe that it is necessary to establish more detailed requirements for the watershed and groundwater protection plan in the regulations. We expect that the BLM field staff will work with the operator to determine the specific information that would need to be included in the watershed and groundwater protection plan for a particular operation. Information in the watershed and groundwater protection plan should be sufficient for the BLM to analyze impacts to water resources. We did not revise the rule as a result of this comment.

One commenter stated that wintertime ozone pollution resulting from oil and gas development is already a problem in some areas, and oil shale development would occur in the same air sheds that are already compromised by emissions from traditional fossil fuel industries. The commenter asserted that the POD would help inform mitigation measures and demonstrate compliance with all of the National Ambient Air Quality Standards. The BLM agrees with these comments.

Commenters also argued that BLM should require, as part of the airshed review, documentation of greenhouse gas (GHG) emissions from all phases of the proposed project, including energy demands, construction of lease sites, production of fuel, and combustion of fuel ultimately produced, as well as incremental contributions from individual projects; and compliance with applicable Federal and state policies and standards. One commenter noted that Round 2 R, D and D lessees must include in their final report to the BLM, information about air emissions, including life cycle greenhouse gas emissions and carbon capture and sequestration. This commenter asserted that requiring that data to be included in a commercial POD will put R, D and D and non-R, D and D lessees on equal footing. Another commenter asserted that oil shale development would further undermine efforts to reduce GHG emissions.

The BLM has not modified the final rule to require GHG documentation specifically as part of the airshed review. We do not believe that it is necessary to establish more detailed requirements for the airshed review in the regulations. We expect that the BLM field staff will work with the operator to determine the specific information that would need to be included in the airshed review for a particular operation.

A commenter stated that, “Proper waste management is critical to protecting human health, the environment and federal taxpayers.” The commenter noted the past and future costs to taxpayers of remediation of the failed oil shale operation site at Anvil Points, Colorado, as support for its assertion that it is incumbent on lessees, the BLM, the Environmental Protection Agency and other regulatory agencies to closely scrutinize

development plans and enforce relevant regulations, in order to prevent taxpayer funded cleanup costs. Another commenter favored substantial expansion of the types of information required by section 3931.11(j), asserting that the best way to avoid potential environmental cleanups arising from oil shale development is to require a meaningful analysis of potential risks from disposal of wastes. The commenter stated that section 3931.11(j) should require the following types of additional information: disclosure of all products—solvents, fuels and the like—to be used on the site; a list of the waste constituents, including all wastes that would be subject to Resource Conservation and Recovery Act (RCRA) hazardous waste or solid waste regulations; an examination of the applicability of RCRA to any disposal of wastes, including examination of the toxicity, ignitability, corrosive, or reactive nature of those wastes; disposal plans, and the applicable regulatory structure to discarded wastes; and examination of the potential for leaching of waste from tailing piles and constituents (including concentrations) remaining on waste piles.

The BLM has decided not to require additional specific information in section 3931.11(j). We do not believe that it is necessary to establish more detailed requirements for the integrated waste management plan in the regulations. We expect that the BLM field staff will work with the operator to determine the specific information that would need to be included in the integrated waste management plan for a particular operation.

A commenter was concerned that the use of the phrase “mine waste” to describe oil shale wastes wrongly suggests that oil shale waste (such as spent shale) could fall

under the Bevill exemption. The Bevill amendment exempts from regulation under the RCRA hazardous waste program, wastes from the extraction, beneficiation and processing of minerals, until the EPA completes a rulemaking specifying which such wastes should be exempt from regulations governing hazardous wastes, and instead be subject to regulations for non-hazardous wastes. See generally, United States v. Magnesium Corp. of Am., 616 F.3d 1129, 1132-33 (10th Cir. 2010) (citing, e.g., 42 U.S.C. 6921(b)(3)(A)(ii), 6882(p)). EPA's rule is codified at 40 CFR part 261. The commenters requested that the word "mine" be dropped from the description to eliminate any confusion regarding the applicability of RCRA.

Removing the word "mine" from these BLM regulations will not likely affect how the courts or the EPA view the applicability of RCRA to mine waste generated from oil shale development. We have, nevertheless, removed the word "mine" from the text of section 3931.11(j), as suggested by the commenter, to allow the integrated waste management plan requirement to encompass all waste, not only the type of waste traditionally viewed as mine waste.

A few counties and a local government coalition opposed the proposal, asserting that each of the proposed plans are addressed at other stages of the process and that adding these requirements as conditions of approval for a POD is redundant and burdensome for oil shale developers. These commenters argued that the proposed provision would require oil shale developers to meet a much higher standard than other extractive industries on Federal lands.

We do not agree that requiring these plans and reviews is either unnecessary or too burdensome. To the contrary, we believe that itemizing the specific plans to be included in the POD provides the industry notice of and greater clarity on the information that will be necessary to obtain approval of a commercial project. We do not believe that these information and planning requirements are substantially more rigorous than what is required from oil and gas or coal operators, and some degree of additional rigor is entirely appropriate here. Commercial-scale oil shale development is a new industry with the potential for very significant environmental and health risks and impacts. These include impacts on local and regional air quality, climate change, water quantity and quality, and waste disposal, as well as on ecosystems and wildlife. Neither the BLM nor any other Federal agency has experience in projecting and assessing these impacts, or determining how to mitigate them. Under these circumstances, requiring the project developers to specifically identify and plan to address these impacts is reasonable and necessary.

One commenter stated that the “BLM has failed to justify the need for this new regulatory burden and to explain why existing statutory and regulatory mechanisms are insufficient to ensure informed BLM decisions when reviewing proposed Plans of Development and satisfactory environmental performance of operations under an approved development plan.” Several commenters asserted that the BLM also failed to adequately describe the technical components, data, and analyses that would be necessary to develop these documents and thus comply with the new information requirements.

We agree the BLM already has the authority to require this new information, but we think the specific plans required by these new provisions will help further clarify the information requirements for the industry. The final rule thus reduces the need for the BLM to request additional data under 43 CFR 3911.11(k) to complete analyses required under NEPA and FLPMA, which can delay processing. As discussed previously, however, we do not believe that it would necessarily be helpful to establish more detailed requirements for the plans in the regulations. We expect that the BLM field staff will work with the operator to determine the specific information that would need to be included in the plans for a particular operation. Also, details about technical components, data, and analyses to complete the required reports will likely evolve as science and engineering progresses. Prescribing specific data elements in a nationwide rule, as the commenter suggests, would inhibit utilization of the best information.

Based on the above analysis of comments received, we have decided to implement the revisions to sections 3931.11 as proposed, with the deletion of the word “mine” in paragraph (j).

IV. Procedural Matters

Regulatory Planning and Review (Executive Orders 12866 and 13563)

Executive Order 12866 provides that the Office of Information and Regulatory Affairs in the Office of Management and Budget will review all significant rules. The

Office of Information and Regulatory Affairs has determined that this rule is not significant.

Executive Order 13563 reaffirms the principles of E.O. 12866 while calling for improvements in the nation's regulatory system to promote predictability, to reduce uncertainty, and to use the best, most innovative, and least burdensome tools for achieving regulatory ends. The executive order directs agencies to consider regulatory approaches that reduce burdens and maintain flexibility and freedom of choice for the public where these approaches are relevant, feasible, and consistent with regulatory objectives. E.O. 13563 emphasizes further that regulations must be based on the best available science and that the rulemaking process must allow for public participation and an open exchange of ideas. We have developed this rule in a manner consistent with these requirements.

The final rule revises the regulations at 43 CFR parts 3900, 3920, and 3930. These amendments designate the royalty rates set by the final 2008 rule as minimum rates, provide that the initial royalty rate will be set in the notice of sale or at the time of R, D and D lease conversion, and specify that the royalty rate will increase annually beginning in year six, up to a maximum rate set in year 13. Additionally, the final rule requires an applicant's proposed plan of development to include specified resource protection plans (a watershed and groundwater protection plan, an airshed review, an integrated waste management plan, and an environmental protection plan), and clarifies that the BLM has the authority to reject or require modifications of a proposed plan or R, D and D lease conversion application based on environmental or other natural resource considerations.

Royalty payments are recurring income to the Federal Government and costs to the operator. As such, they are transfer payments that do not affect total resources available to society. Changes in the royalty rate have the potential to alter future distributional effects, but the revenues the new royalties could generate would not represent a cost or benefit to the economy. OMB defines “transfer payment” to include payments to the government in addition to the unearned payments from the government (Economic Analysis of Federal Regulations Under Executive Order 12866, January 11, 1996, http://www.whitehouse.gov/omb/inforeg_riaguide). In addition, the definition of transfer payment that OMB uses encompasses the revenue collected through a fee, surcharge, or tax (in excess of the cost of any service provided). Since a royalty is not a payment for service, this OMB transfer payment definition extends to royalties. Accordingly, royalties—and any associated future potential revenue—are not to be included in a calculation of the rule’s annual effect to the economy.

Royalty income is dependent on how much oil shale may be produced as well as the market price of the commodity. Currently, we have no persuasive evidence that oil shale product is being produced and sold for liquid fuels in a commercially sustainable operation (i.e., for a profit in an arm’s-length market). Given the range of uncertainties involved in whether or to what extent oil shale development may take place in the future, the BLM has not attempted to project the potential change in these transfer payments due to this rule.

In addition to the royalty provision, there are a number of provisions addressing information and standards associated with lease issuance and approval of PODs. The changes would primarily codify current BLM practices, procedures, and policies. Assuming compliance with existing practices, procedures, and policies, there should not be any increased costs associated with complying with these changes.

Based on the available information, we estimate the annual effect on the economy of the final rule will be far less than \$100 million, and the rule will not adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or state, local or tribal governments or communities. This rule will not create inconsistencies or otherwise interfere with an action taken or planned by another agency. This rule will not change the relationships of the oil shale programs with other agencies' actions. This rule does not materially affect the budgetary impact of entitlements, grants, loan programs, or the rights and obligations of their recipients. In addition, this rule does not raise any novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order. The Office of Management and Budget has determined that this is not a significant rule under E.O. 12866.

The BLM received a few comments asserting that the proposed rule failed to comply with certain specific criteria of Executive Order 12866. One comment asserted that the BLM attempted to minimize the potential economic effect of the regulatory action relative to Federal revenues, but failed to fully document effects to the "economy,

sector of the economy, productivity, competition, jobs, the environment, public health or safety, or state, local or tribal governments or communities.” The commenter opined that the economic impact of the proposed changes in the royalty rate structure and new environmental standards could cause a project not to be undertaken or cause the termination of a project, and thus the proposed revisions must be considered a significant regulatory action, with adverse effects to “the economy, sector of the economy, productivity, competition, jobs, the environment, public health or safety, or state, local or tribal governments or communities.”

The final rule makes a modest change in the 2008 royalty rate structure by allowing the 2008 royalty rates, or a higher rate, to be applied on a lease-by-lease basis. The BLM does not intend to establish a lease-specific royalty rate that would preclude development of a specific project. To the contrary, setting the rate lease-by-lease will allow the BLM to consider each project’s specific economic circumstances. Additionally, most or all of the information related to environmental impacts would likely already be required as part of a project’s NEPA review. The BLM does not anticipate that these modest regulatory changes will have much, if any, impact on the viability of commercial oil shale development, much less any broader economic impacts.

While this is not a significant rule for purposes of E.O. 12866, the BLM nonetheless prepared a regulatory impact analysis for the rule. The BLM received a few comments challenging aspects of the regulatory impact analysis prepared in conjunction with the proposed rule. A commenter stated that in its evaluation of the economic impact

of the proposed rule, the BLM ascribes a zero dollar value to numerous categories, and concludes that it is incapable of estimating the costs of the rule, and concludes that the economic impact of the proposed rule will be less than \$100 million. The commenter, an R, D and D lessee, stated that its investment alone “has already reached \$65M, which when combined with the investments of other R, D and D lessees and potential commercial lessees easily exceeds \$100 Million.” The criterion for a significant rule is not whether it regulates an industry with a total investment of at least \$100 million, but whether the rule itself will have an annual effect on the economy of \$100 million or more. The commenter’s information is not relevant to that determination, and the BLM continues to believe that the minor regulatory changes made by this rule will not have an annual effect on the economy—or the oil shale industry—of \$100 million or more.

The BLM received a few comments addressing the clarity of specific proposed regulatory revisions. One commenter asserted that the UER standard is not adequately defined or adequately discussed in the proposed rule, and that it could lead to arbitrary subjective decisions and widely varied interpretations. As previously stated in the discussion of comments on UER, the final rule does not adopt UER or any other environmental standard but relies instead on the statutory standards requiring the BLM to prevent unnecessary or undue degradation of the public lands and promote multiple-use and sustained-yield management of those lands.

Small Business Regulatory Enforcement Fairness Act

For a major rule, as defined by the Small Business Regulatory Enforcement Fairness Act (SBREFA), the BLM must prepare an initial regulatory flexibility analysis.

For SBREFA, a rule may be major if it meets any of three criteria:

- Have an annual effect on the economy of \$100 million or more;
- Create a major increase in costs or prices for consumers, individual industries, Federal, state, or local government agencies, or geographic regions; or
- Have significant adverse effects on competition, employment, investment, productivity, innovation, or on the ability of United States-based enterprises to compete with foreign-based enterprises in domestic and export markets.

If a rule is determined to be major, SBREFA requires an agency to analyze whether the final rule will have a significant impact on a substantial number of small entities. This rule is not a major rule for purposes of SBREFA, as it meets none of the three criteria.

National Environmental Policy Act (NEPA)

The regulatory amendments in this rule are categorically excluded from the requirement to prepare an environmental assessment (EA) pursuant to the regulations at 43 CFR 46.205 and 46.210, because they are “regulations ... of an administrative ... nature ... whose environmental effects are too broad, speculative, or conjectural to lend

themselves to meaningful analysis and will later be subject to the NEPA process, either collectively or case-by-case.” Nonetheless, the BLM has prepared an EA (DOI-BLM-WO-3900-2016-0001-EA) to inform the decision-maker and the public. The EA concludes that this rule would not constitute a major Federal action significantly affecting the quality of the human environment under Section 102(2)(C) of NEPA, 42 U.S.C. 4332(2)(C). A detailed statement under NEPA is not required.

The BLM received several comments related to NEPA compliance. Some of the comments related to the proposed environmental standard of UER as well as other proposed environmental protection provisions. Some of the comments particularly focused on the EA that was prepared for the proposed rule and the analysis of the impacts identified and addressed therein. Many of those commenters asserted that the EA failed to justify proposed regulatory revisions that would require new information to be submitted for a POD, arguing that the new information requirements would be duplicative of information available through NEPA analysis.

The BLM does not agree that the final rule is unjustified or unnecessarily duplicative. Section 3931.10 provides the BLM the authority to request additional information outside the required information itemized in section 3931.11. The four additional plans that are required under paragraphs (h) through (l) constitute information that is important for the NEPA analysis and for management of the lands under FLPMA. The inclusion of these plans in the list of required information/documentation under section 3931.10 should aid the applicant by making the applicant aware of the specific information the BLM needs to approve a POD. It will also help the BLM in its decision

making process, as required information will be included and submitted in a single document.

The BLM also received comments asserting that the EA prepared for the proposed rule was insufficient, and an Environmental Impact Statement (EIS) is required. As explained in the EA, these amendments to existing regulations will not significantly impact the quality of the human environment. The final rule neither authorizes nor prohibits any oil shale project on public lands, nor does it make any such project more or less likely to occur. Thus no EIS is required for these amendments.

One commenter addressed future NEPA analyses to evaluate impacts related to specific leasing decisions. This commenter asserted that an EIS, as opposed to an EA, is essential prior to a leasing decision because, the commenter stated, both a cumulative impacts analysis and a landscape analysis must be completed. The commenter requested that the leasing regulation include a requirement for an EIS prior to leasing. The commenter also requested the BLM to define appropriate mitigation measures. The commenter further stated the BLM should amend the existing regulations to require an EIS prior to issuance of a commercial lease, which in turn would mandate completion of an EIS when an R, D and D lessee applies for conversion to a commercial lease. This comment is outside the scope of this rulemaking, and the commenter's suggestion is therefore not being adopted. The BLM notes, however, that it complies with NEPA and Council on Environmental Quality guidance in determining what type of environmental

analysis is appropriate for each decision pertaining to mineral development on public lands.

Another commenter focused on the four new plans that would be required for a POD and stated that all four documents embodied in those plans/reviews/studies would already be required under NEPA. The commenter argued that giving an environmental analysis requirement a “plan name” or specific “review name” does not increase the environmental protections that fall under NEPA regulations. A few commenters asserted that certain provisions are duplicative of not only NEPA and other Federal requirements, but also BLM processes and regulations. Commenters also argued that existing regulations require preparation and submittal of environmental plans and documents that address most if not all of the concerns that the new plans would address, and they asserted that the BLM already has authority under an existing regulation to request any additional information it determines is necessary for analysis or approval of a POD.

The BLM does not concur with these comments. The BLM believes that it is in the proponent’s interest for the final rule to incorporate and reflect the new information requirements associated with submission of a POD. Although the BLM has authority under section 3931.10 to request additional information, including the listing and description of the four new plans in this rule ensures that this information is provided with every POD, rather than only when specifically requested by the BLM. Requiring that this information be included with every POD will help BLM in its decision-making

process, reduce delays in processing, and facilitate better environmental performance of operations under an approved POD.

Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) requires agencies to analyze the economic impact of proposed and final regulations to determine the extent to which the regulations will have a significant economic impact on a substantial number of small entities.

Executive Order 13272 reinforces executive intent that agencies give serious attention to impacts on small entities and develop regulatory alternatives to reduce the regulatory burden on small entities. When the final regulation will impose a significant economic impact on a substantial number of small entities, the agency must evaluate alternatives that would accomplish the objectives of the rule without unduly burdening small entities. Inherent in the RFA is a desire to remove barriers to competition and encourage agencies to consider ways of tailoring regulations to the size of the regulated entities.

The Small Business Administration (SBA) has developed size standards to carry out the purposes of the Small Business Act; those size standards can be found in 13 CFR 121.201. The SBA defines small entities involved in the oil and gas industry, which includes oil shale, as individuals, limited partnerships, or small companies considered at “arm’s length” from the control of any parent companies, with fewer than 1,250 employees. For firms involved in oil and gas field exploration services and other field services SBA defines a small entity as having annual receipts of less than \$38.5 million.

There are currently no active commercial oil shale operations on Federal lands. Five firms hold R, D and D leases (one lease has been relinquished). Of the five companies, two are major oil companies, one is a multi-national oil shale company, one is a small mining company, and one is a small research and development firm. In addition to the current make up of those firms operating on Federal lands, past efforts primarily involved the Federal Government or large corporations. Smaller firms were involved, but their involvement was primarily to support larger organizations.

Entities that would be directly affected by this commercial oil shale leasing rule would include most, if not all, firms involved in the exploration and development of oil shale resources on Federal lands. Such firms are a subset of entities involved in the domestic oil shale industry.

U.S. Census data on the size of firms involved in oil shale research, exploration, and development is not available, or at least not in a form that allows the BLM to separate those firms from the much larger oil and gas industry. Information on firms involved in the oil shale industry is included in the broader categories of Crude Petroleum and Natural Gas Extraction, Support Activities for Oil and Gas Operations, and Petroleum Refineries. Within the Crude Petroleum and Natural Gas Extraction category, over 98 percent of the firms have fewer than 500 employees (U.S. Department of Commerce, Economics and Statistics Administration, U.S. Census Bureau, Number of Firms, Number of Establishments, Employment, and Annual Payroll by Employment Size of the Enterprise for the United States)(last updated in 2012). Seventy-five percent

of all firms in the Petroleum Refineries category had fewer than 500 employees. Ninety-two percent of the firms involved in providing oil and gas field service support had average annual receipts of less than \$5 million. This data indicates that the preponderance of firms in the domestic oil and gas industry are small entities as defined by the SBA.

If technological advances and favorable market conditions support oil shale development, the BLM anticipates an increase in the number of firms involved in oil shale development. However, the number of firms, large or small, involved in oil shale development on Federal lands will likely remain quite limited. Estimates for the size of the industry in the next 30 years range from 3 to 17 operations involved in the extracting and retorting of shale oil. To put these numbers in perspective, in 2012 there were approximately 6,500 establishments directly involved in the extraction of crude oil and natural gas in the United States. This count does not include establishments primarily engaged in performing drilling and support activities for oil and gas operations, which adds an additional 10,000 more establishments to that count. Further, the BLM expects that future oil shale development would involve both large and small firms. If past development efforts are an accurate indicator of the future, most leasing and development will be led by a large, well-capitalized organization, supported by smaller entities. Given the small total number of entities that may eventually be involved in the leasing and development of Federal oil shale resources, and the likelihood that many of those will be large, well-capitalized firms, the BLM does not believe that this rule will impact a substantial number of small entities.

Even if this rule *does* impact a substantial number of small entities, the BLM does not believe the impact will be significant. Oil shale development is characterized by high capital investment and long periods of time between expenditure of capital and the realization of production revenues and return on investment. Revenues are uncertain because future market prices for oil shale production and by-products are unknown. Therefore, a key economic barrier to private development is the inability to predict when profitable operations will begin. The economic risk associated with this uncertain outcome is magnified by the unusually large capital exposure, measured in billions of dollars per project, required for development. In short, there are significant barriers to oil shale development, including technological unknowns and potentially significant environmental impacts. The regulatory changes in this final rule are not likely to impede development or have a significant economic impact on lessees or operators, regardless of firm size.

The BLM therefore does not anticipate the final rule to have a significant economic impact on a substantial number of small entities.

Unfunded Mandates Reform Act

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.) this rule will not impose an unfunded mandate on state, local, or tribal governments or the private sector, in the aggregate, of \$100 million or more per year; nor would this rule have a significant or unique effect on state, local, or tribal governments. The rule imposes no

requirements on any of those entities. Therefore, the BLM is not required to prepare a statement containing the information required by the Unfunded Mandates Reform Act.

Executive Order 12630, Governmental Actions and Interference with Constitutionally Protected Property Rights (Takings)

This rule is not a government action capable of interfering with constitutionally protected property rights. A takings implication assessment is not required. The rule would not authorize any specific activities that would result in any effects on private property. Therefore, the Department has determined that the rule would not cause a taking of private property or require further discussion of takings implications under this Executive Order.

Executive Order 13132, Federalism

This rule would not have a substantial direct effect on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the levels of government. It would not apply to states or local governments or state or local governmental entities. The management of Federal oil shale leases is the responsibility of the Secretary of the Interior and the BLM. This rule does not alter any lease management or regulatory role of the states or the rules governing revenue sharing with the states. In addition, this rule does not impose any requirements or costs on the states. Therefore, in accordance with Executive Order 13132, the BLM has determined that this rule does not have sufficient Federalism implications to warrant preparation of a federalism summary impact statement.

Executive Order 12988, Civil Justice Reform

Under Executive Order 12988, the BLM and the Office of the Solicitor has determined that this rule complies with the requirements of Executive Order 12988. Specifically, this rule:

(a) Meets the criteria of section 3(a) requiring that all regulations be reviewed to eliminate errors and ambiguity and be written to minimize litigation; and

(b) Meets the criteria of section 3(b)(2) requiring that all regulations be written in clear language and contain clear legal standards.

Executive Order 13175, Consultation and Coordination with Indian Tribal Governments

In accordance with Executive Order 13175, the BLM has found that this rule may include policies that have indirect implications for tribes. The rule implements the Federal oil shale leasing and management program, which does not apply on tribal or allotted Indian lands. At present, there are no oil shale leases or agreements on tribal or allotted Indian lands. If tribes or allottees should ever enter into any leases or agreements with the approval of the Bureau of Indian Affairs (BIA), the BLM might be responsible for the approval of any proposed operations on Indian oil shale leases and agreements by the BIA regulation or by delegation from the Secretary. The final rule is not, however, promulgated under authority of any of the Indian minerals statutes, and does not apply on Indian lands absent such regulation or delegation.

The BLM sent letters to 19 tribes offering one-on-one consultation. The BLM received no responses.

Executive Order 13211, Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

This rule is not a significant energy action under the definition in Executive Order 13211. A Statement of Energy Effects is not required.

The BLM received a few comments relating to Executive Order 13211. As discussed earlier in this preamble, as well as in the preamble to the proposed rule, the Secretary considered several options for replacing the royalty rate structure established by the 2008 final rule. Additional information about oil shale production may be available in the future that would inform the Secretary's decision on royalty rates. The modification to the 2008 royalty rate and other changes are not anticipated to have a significant negative effect on the economic viability of industry or on the nation's supply, distribution, or use of energy. The BLM believes the rule will not have an adverse effect on the supply, distribution, or use of energy, and therefore has determined that the preparation of a Statement of Energy Effects is not required.

Some commenters argued that the proposed revisions would limit the potential for future supply, distribution, and use of domestic energy available through oil shale development. One commenter stated that the BLM must conduct a study in order to

determine if its conclusions can be supported. Asserting that estimates of the potentially recoverable oil shale resource in Colorado, Utah, and Wyoming range from 1.2 and 1.8 trillion barrels, and that more than 70% of U.S. oil shale deposits are located on Federal land, the commenter argued Federal regulatory policies will play a tremendous if not deciding factor in the ultimate development of the nation's oil shale resources.

The final rule neither authorizes nor prohibits any oil shale development project. The rule somewhat reduces the certainty of the royalty rate that would be applied to future commercial operations, but it does not require that a future royalty be any higher than the royalty system in the 2008 rule. The rule will modestly increase paperwork burdens for operators, but much of the information required would be required pursuant to NEPA in the absence of this rule, and any new costs will be incidental in the context of the development costs reported by some R, D and D lessees. The rule makes explicit the BLM's discretion to approve plans of operations, but does not change any non-discretionary action into a discretionary action. Finally, the BLM did not adopt the proposed UER standard, and thus has avoided any uncertainty that UER could have caused.

Executive Order 13352, Facilitation of Cooperative Conservation

In accordance with Executive Order 13352, the BLM has determined that this final rule would not impede cooperative conservation; takes appropriate account of and considers the interests of persons with ownership or other legally recognized interests in the land or other natural resources; properly accommodates local participation in the

Federal decision-making process; and provides that programs, projects, and activities are consistent with protecting public health and safety. This rule adopts many of the provisions of the proposed rule. Several of the revisions are procedural in nature and provide clarification of existing revisions. The rule also includes environmental protection requirements for plans of development. The rule will not affect opportunities under existing regulatory provisions for governors, state, local, and tribal governments to provide comments prior to the BLM offering the tracts for competitive oil shale leasing.

Paperwork Reduction Act

Overview

The final rule contains information collection requirements that are subject to review by OMB under the Paperwork Reduction Act (PRA) (44 U.S.C. 3501-3521). The PRA provides that an agency may not conduct or sponsor, and no response is required for, a “collection of information” unless it displays a currently valid control number. Collections of information include any request or requirement that an individual, partnership, or corporation obtain information, and report it to a Federal agency (44 U.S.C. 3502(3) and 5 CFR 1320.3(c) and (k)).

The BLM is authorized to collect information pertaining to oil shale under control number 1004-0201, Oil Shale Management (43 CFR parts 3900, 3910, 3920, and 3930) (expiration date: January 31, 2018). The BLM has requested, and OMB has approved, revision of control no. 1004-0201 to include changes in the final rule. The final rule adds

four additional categories of information collection activities to 43 CFR 3931.11, which lists the required contents of a plan of development.

Summary of Information Collection Activities

- Title: Oil Shale Management (43 CFR Parts 3900, 3910, 3920, and 3930).
- Forms: None.
- OMB Control Number: 1004-0201.
- Description of Respondents: Persons and corporations seeking a lease for oil shale deposits belonging to the United States and the surface of so much of the public lands containing such deposits, or land adjacent thereon, as may be required for the extraction and reduction of the leased minerals.
- Respondents' Obligation: Required to obtain or retain a benefit.
- Abstract: The information-collection aspects of this rule pertain to plans of development (POD).
- Frequency of Collection: On occasion.
- Estimated Number of Responses Annually: 24.
- Estimated Annual Burden Hours: 1,955 burden hours (1,795 burden hours + 160 burden hours associated with the new information requirements for a POD).
- Estimated Annual Non-Hour Costs: None.

Discussion of Information Collection Activities and Public Comments

The OMB control number 1004-0201 authorized 308 burden hours and no non-hour costs for each POD. This rule has the effect of ascribing 468 burden hours to each POD.

This final rule revises section 3931.11 to require submission of the following additional information in a POD:

A. Section 3931.11(h) adds a requirement for a watershed and groundwater protection plan:

(1) To conduct operations in a manner that protects surface and groundwater resources from adverse effects on the quality, quantity, timing and distribution of water resulting from operations; and

(2) To provide for monitoring, adaptive management, and mitigation of adverse impacts, both during and after operations. This plan would assist the BLM in assessing and managing potential impacts on an ongoing basis.

B. Section 3931.11(i) adds a requirement for a review of the scientific data and analyses currently available at a reasonable cost, relevant to the potential effects of commercial oil shale operations on the air quality of the pertinent airshed.

C. Section 3931.11(j) requires an integrated waste management plan:

(1) To conduct operations in a manner that minimizes the production of waste;
and

(2) To provide for monitoring, adaptive management, and mitigation of adverse impacts, both during and after operations.

D. Section 3931.11(k) requires an environmental protection plan:

(1) To conduct operations in a manner that minimizes adverse effects of oil shale operations on the:

(a) Quality of the air and water;

(b) Wildlife and native plants; and

(c) Productivity of soils; and

(2) To provide for monitoring, adaptive management, and mitigation of adverse impacts, both during and after operations.

In the proposed rule, the BLM estimated that each of these new information requirements would add 10 hours to respondents' burden hours associated with preparation of a POD. The total estimated burden hours for section 3911.11 would thus have been increased from 308 hours to 348 hours.

The BLM received a few comments relating to the information collection burden associated with the proposed rule. Some commenters argued that the BLM should not require the four new submissions in a POD due to the burden associated with the additional requirements. While the rule will result in increased paperwork burdens for

operators, the inclusion of the new elements in a POD is expected to prevent delays due to insufficient information. The commenters also maintained that the proposed rule did not provide adequate information on the level of technical detail and data components or elements required for preparation of each of the plans. We responded to similar comments above. Prescribing specific data elements in a nationwide rule, as the commenter suggests, could inhibit utilization of the best available information.

Another commenter argued that the UER or UEC standards would increase the information requirements and burdens in ways that were not included in the estimates. Because the final rule does not include a new environmental standard such as UER or UEC, there are no information collection burdens from such a standard.

In addition to questioning BLM's calculation of the burden hours associated with the information collection relating to the required new plans, a few comments also asserted that the new plans duplicate existing statutory and regulatory requirements, e.g., the requirements of NEPA and the Superfund Amendments and Reauthorization Act (SARA), without demonstrating a well-defined need or benefit.

While a NEPA analysis would generally require similar information as is required in the POD in the final rule, requiring that the plans be provided in the POD increases clarity for the project developer and ensures that this information is developed in a timely manner. To the extent that there is any duplication in the requirements, the same information can be used for both purposes, and thus there is little if any additional

burden. With respect to the waste reduction management plan, the BLM is not an implementing agency for SARA, but is the steward for the public lands.

In asserting that the BLM's estimate of burden hours is unrealistic, one commenter stated: "There is very little that takes a mere week to accomplish with regulatory agencies, and a comparison of the 40-hour estimate with cost recovery estimates and invoices to private entities for similar regulatory and planning activities would likely prove this calculation to be a gross under estimate of the actual time and cost that would be required." Another comment expressed the same viewpoint, stating that developing complete comprehensive and defensible environmental plans would likely incur substantially more burden hours than the BLM's estimate.

We appreciate the comments concerning the "burden hours" estimate for the additional information required to be submitted in PODs, and agree with some of the points made. Based on the comments received, we are revising the "burden hour" estimate stated in the proposed rule from 10 hours per each of the four plans to 40 hours per plan, for a total of 160 additional hours (120 hours above the hours estimate in the proposed rule). This increases the total estimate for the development of a POD under the final rule from 308 to 468 hours, an increase of 52 percent. The total burden hours approved under the current information collection (OMB Control Number 1004-0201) dated January 27, 2015) is 1,795 hours. The estimated additional 160 burden hours for a POD would result in adjusting the total burden hours associated with the oil shale regulations to 1,955 hours.

Authors

The principal authors of this rule are Mitchell Leverette, Mary Linda Ponticelli, Paul McNutt and Vince Vogt, Division of Solid Minerals (Washington Office) and the BLM's Division of Regulatory Affairs (Washington Office) and assistance from the Solicitor's Office of the Department of the Interior.

List of Subjects

43 CFR Part 3900

Administrative practice and procedure, Environmental protection, Intergovernmental relations, Mineral royalties, Oil shale reserves, Public lands-mineral resources, Reporting and recordkeeping requirements, Surety bonds.

43 CFR Part 3920

Administrative practice and procedure, Environmental protection, Intergovernmental relations, Oil shale reserves, Public lands-mineral resources, Reporting and recordkeeping requirements.

43 CFR Part 3930

Administrative practice and procedure, Environmental protection, Mineral royalties, Oil shale reserves, Public lands-mineral resources, Reporting and recordkeeping requirements, Surety bonds.

Accordingly, for the reasons stated in the preamble and under the authorities stated below, the BLM amends 43 CFR parts 3900, 3920, and 3930 as set forth below:

PART 3900—OIL SHALE MANAGEMENT—GENERAL

1. The authority citation for part 3900 continues to read as follows:

AUTHORITY: 30 U.S.C. 189, 241(a), and 359, 42 U.S.C. 15927, 43 U.S.C. 1732(b) and 1740.

2. Amend § 3903.52 by revising paragraph (b) to read as follows:

Subpart 3903—Fees, Rentals, and Royalties

§3903.52 Production royalties.

(b) The royalty rate for the products of oil shale will be set on a lease-by-lease basis in the notice of sale. The royalty rate will be no less than 5 percent of the amount or value of production for the first 5 years of commercial production. The royalty rate will increase by 1% each year starting the sixth year of commercial production through the twelfth year of commercial production. The royalty rate will increase by 0.5% in the thirteenth year of commercial production and will remain at that level in subsequent years.

PART 3920—OIL SHALE LEASING

3. The authority citation for part 3920 continues to read as follows:

AUTHORITY: 30 U.S.C. 241(a), 42 U.S.C. 15927, 43 U.S.C. 1732(b) and 1740.

Subpart 3925—Award of Lease

4. Amend §3925.10 by revising paragraph (a) to read as follows:

§ 3925.10 Award of lease.

(a) The lease will be awarded to the highest qualified bidder whose bid meets or exceeds the BLM's estimate of FMV, except as provided in § 3924.10. When the BLM determines that the lease should be issued, it will provide the successful bidder 3 copies of the oil shale lease form for execution. Commercial oil shale leases will be issued only under the procedures in this part.

Subpart 3926—Conversion of Preference Right for Research, Development, and Demonstration (R, D and D) Leases

5. Amend § 3926.10 by revising paragraph (a) by adding a sentence to the end of the paragraph to read as follows:

§ 3926.10 Conversion of an R, D and D lease to a commercial lease.

(a) *** The BLM may, in its discretion, deny an application to convert an R, D and D lease to a commercial lease because of impacts of the proposed commercial operation on the environment or natural resources.

PART 3930—MANAGEMENT OF OIL SHALE EXPLORATION AND LEASES

6. The authority citation for part 3930 continues to read as follows:

AUTHORITY: 25 U.S.C. 396d and 2107, 30 U.S.C. 241(a), 42 U.S.C. 15927, 43 U.S.C. 1732(b), 1733, and 1740.

Subpart 3931—Plans of Development and Exploration Plans

7. Amend § 3931.10 by adding new paragraph (g) to read as follows:

§ 3931.10 Exploration plans and plans of development for mining and in situ operations.

(g) The BLM may deny a POD because of impacts of the proposed commercial operation on the environment or natural resources. The BLM may require a modification of, or condition the POD to protect the environment or natural resources.

8. Amend § 3931.11 by inserting new paragraphs (h), (i), (j), and (k) and redesignating existing paragraphs (h) as (l); (i) as (m); (j) as (n); and (k) as (o).

§ 3931.11 Content of plan of development.

(h) A watershed and groundwater protection plan, which is a plan to conduct operations in a manner that protects surface and groundwater resources from adverse effects on the quality, quantity, timing, or distribution of water resulting from operations, and to monitor, adaptively manage, and mitigate adverse impacts, both during and after operations;

(i) An airshed review, which is a review of the scientific data and analyses currently available at a reasonable cost relevant to the potential effects of commercial oil shale operations on the air quality of the pertinent airshed. The review must provide the BLM with adequate information to assess the effects of operations on the airshed;

(j) An integrated waste management plan, which is a plan to conduct operations in a manner that minimizes the production of waste, and to monitor, adaptively manage, and mitigate the impacts of waste both during and after operations;

(k) An environmental protection plan, which is a plan to:

(1) Conduct operations in a manner that minimizes adverse effects of oil shale operations,
on the:

(i) Quality of the air and water;

(ii) Wildlife and native plants; and

(iii) Productivity of soils; and

(2) Monitor, adaptively manage, and mitigate such adverse effects both during and after operations;

Date

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