

## **PART 3930—MANAGEMENT OF OIL SHALE EXPLORATION AND LEASES**

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### **Section Contents**

#### **Subpart 3930—Management of Oil Shale Exploration Licenses and Leases**

- [§ 3930.10 General performance standards.](#)
- [§ 3930.11 Performance standards for exploration and in situ operations.](#)
- [§ 3930.12 Performance standards for underground mining.](#)
- [§ 3930.13 Performance standards for surface mines.](#)
- [§ 3930.20 Operations.](#)
- [§ 3930.30 Diligent development milestones.](#)
- [§ 3930.40 Assessments for missing diligence milestones.](#)

#### **Subpart 3931—Plans of Development and Exploration Plans**

- [§ 3931.10 Exploration plans and plans of development for mining and in situ operations.](#)
- [§ 3931.11 Content of plan of development.](#)
- [§ 3931.20 Reclamation.](#)
- [§ 3931.30 Suspension of operations and production.](#)
- [§ 3931.40 Exploration.](#)
- [§ 3931.41 Content of exploration plan.](#)
- [§ 3931.50 Exploration plan and plan of development modifications.](#)
- [§ 3931.60 Maps of underground and surface mine workings and in situ surface operations.](#)
- [§ 3931.70 Production maps and production reports.](#)
- [§ 3931.80 Core or test hole samples and cuttings.](#)
- [§ 3931.100 Boundary pillars and buffer zones.](#)

#### **Subpart 3932—Lease Modifications and Readjustments**

- [§ 3932.10 Lease size modification.](#)
- [§ 3932.20 Lease modification land availability criteria.](#)
- [§ 3932.30 Terms and conditions of a modified lease.](#)
- [§ 3932.40 Readjustment of lease terms.](#)

#### **Subpart 3933—Assignments and Subleases**

- [§ 3933.10 Leases or licenses subject to assignment or sublease.](#)
- [§ 3933.20 Filing fees.](#)
- [§ 3933.31 Record title assignments.](#)
- [§ 3933.32 Overriding royalty interests.](#)
- [§ 3933.40 Account status.](#)
- [§ 3933.51 Bond coverage.](#)
- [§ 3933.52 Continuing responsibility under assignment and sublease.](#)
- [§ 3933.60 Effective date.](#)
- [§ 3933.70 Extensions.](#)

#### **Subpart 3934—Relinquishments, Cancellations, and Terminations**

- [§ 3934.10 Relinquishments.](#)
- [§ 3934.21 Written notice of default.](#)
- [§ 3934.22 Causes and procedures for lease cancellation.](#)
- [§ 3934.30 License terminations.](#)
- [§ 3934.40 Payments due.](#)
- [§ 3934.50 Bona fide purchasers.](#)

## **Subpart 3935—Production and Sale Records**

[§ 3935.10 Accounting records.](#)

## **Subpart 3936—Inspection and Enforcement**

[§ 3936.10 Inspection of underground and surface operations and facilities.](#)

[§ 3936.20 Issuance of notices of noncompliance and orders.](#)

[§ 3936.30 Enforcement of notices of noncompliance and orders.](#)

[§ 3936.40 Appeals.](#)

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## **Subpart 3930—Management of Oil Shale Exploration Licenses and Leases**

### **§ 3930.10 General performance standards.**

The operator/lessee must comply with the following performance standards concerning exploration, development, and production:

- (a) All operations must be conducted to achieve MER;
- (b) Operations must be conducted under an approved POD or exploration plan;
- (c) The operator/lessee must diligently develop the lease and must comply with the diligent development milestones and production requirements at §3930.30;
- (d) The operator/lessee must notify the BLM promptly if operations encounter unexpected wells or drill holes that could adversely affect the recovery of shale oil or other minerals producible under an oil shale lease during mining operations, and must not take any action that would disturb such wells or drill holes without the BLM's prior approval;
- (e) The operator/lessee must conduct operations to:
  - (1) Prevent waste and conserve the recoverable oil shale reserves and other resources;
  - (2) Prevent damage to or degradation of oil shale formations;
  - (3) Ensure that other resources are protected upon abandonment of operations; and
- (f) The operator must save soil for use in final reclamation after the reshaping of disturbed areas has been completed.

### **§ 3930.11 Performance standards for exploration and in situ operations. ↑**

The operator/lessee must adhere to the following standards for all exploration and in situ drilling operations:

- (a) At the end of exploration operations, all drill holes must be capped with at least 5 feet of cement and plugged with a permanent plugging material that is unaffected by water and hydrocarbon gases and will

prevent the migration of gases and water in the drill hole under normal hole pressures. For holes drilled deeper than stripping limits, the operator/lessee, using cement or other suitable plugging material the BLM approves in advance, must plug the hole through the thickness of the oil shale bed(s) or mineral deposit(s) and through aquifers for a distance of at least 50 feet above and below the oil shale bed(s) or mineral deposit(s) and aquifers, or to the bottom of the drill hole. The BLM may approve a lesser cap or plug. Capping and plugging must be managed to prevent water pollution and the mixing of ground and surface waters and to ensure the safety of people, livestock, and wildlife;

(b) The operator/lessee must retain for 1 year all drill and geophysical logs. The operator must also make such logs available for inspection or analysis by the BLM. The BLM may require the operator/lessee to retain representative samples of drill cores for 1 year;

(c) The operator/lessee may, after the BLM's written approval, use drill holes as surveillance wells for the purpose of monitoring the effects of subsequent operations on the quantity, quality, or pressure of ground water or mine gases; and

(d) The operator/lessee may, after written approval from the BLM and the surface owner, convert drill holes to water wells. When granting such approvals, the BLM will include a transfer to the surface owner of responsibility for any liability, including eventual plugging, reclamation, and abandonment.

#### **§ 3930.12 Performance standards for underground mining.**

(a) Underground mining operations must be conducted in a manner to prevent the waste of oil shale, to conserve recoverable oil shale reserves, and to protect other resources. The BLM must approve in writing permanent abandonment and operations that render oil shale inaccessible.

(b) The operator/lessee must adopt mining methods that ensure the proper recovery of recoverable oil shale reserves.

(c) Operators/lessees must adopt measures consistent with known technology to prevent or, where the mining method used requires subsidence, control subsidence, maximize mine stability, and maintain the value and use of surface lands. If the POD indicates that pillars will not be removed and controlled subsidence is not part of the POD, the POD must show that pillars of adequate dimensions will be left for surface stability, considering the thickness and strength of the oil shale beds and the strata above and immediately below the mined interval.

(d) The lessee/operator must have the BLM's approval to temporarily abandon a mine or portions thereof.

(e) The operator/lessee must have the BLM's prior approval to mine any recoverable oil shale reserves or drive any underground workings within 50 feet of any of the outer boundary lines of the federally-leased or federally-licensed land. The BLM may approve operations closer to the boundary after taking into consideration state and Federal environmental laws and regulations.

(f) The lessee/operator must have the BLM's prior approval before drilling any lateral holes within 50 feet of any outside boundary.

(g) Either the operator/lessee or the BLM may initiate the proposal to mine oil shale in a barrier pillar if the oil shale in adjoining lands has been mined out. The lessee/operator of the Federal oil shale must enter into an agreement with the owner of the oil shale in those adjacent lands prior to mining the oil shale remaining in the Federal barrier pillars (which otherwise may be lost).

(h) The BLM must approve final abandonment of a mining area.

#### **§ 3930.13 Performance standards for surface mines. ↑**

(a) Pit widths for each oil shale seam must be engineered and designed to eliminate or minimize the amount of oil shale fender to be left as a permanent pillar on the spoil side of the pit.

- (b) Considering mine economics and oil shale quality, the amount of oil shale wasted in each pit must be minimal.
- (c) The BLM must approve the final abandonment of a mining area.
- (d) The BLM must approve the conditions under which surface mines, or portions thereof, will be temporarily abandoned, under the regulations in this part.
- (e) The operator/lessee may, in the interest of conservation, mine oil shale up to the Federal lease or license boundary line, provided that the mining:
- (1) Complies with existing state and Federal mining, environmental, reclamation, and safety laws and rules; and
  - (2) Does not conflict with the rights of adjacent surface owners.
- (f) The operator must save topsoil for final application after the reshaping of disturbed areas has been completed.

### **§ 3930.20 Operations.**

- (a) *Maximum Economic Recovery (MER)*. All mining and in situ development and production operations must be conducted in a manner to yield the MER of the oil shale deposits, consistent with the protection and use of other natural resources, the protection and preservation of the environment, including, land, water, and air, and with due regard for the safety of miners and the public. All shafts, main exits, and passageways, and overlying beds or mineral deposits that at a future date may be of economic importance must be protected by adequate pillars in the deposit being worked or by such other means as the BLM approves.
- (b) *New geologic information*. The operator must record any new geologic information obtained during mining or in situ development operations regarding any mineral deposits on the lease. The operator must report this new information in a BLM-approved format to the proper BLM office within 90 calendar days after obtaining the information.
- (c) *Statutory compliance*. Operators must comply with applicable Federal and state law, including, but not limited to the following:
- (1) Clean Air Act (42 U.S.C. 1857 *et seq.* );
  - (2) Federal Water Pollution Control Act, as amended (30 U.S.C. 1151 *et seq.* );
  - (3) Solid Waste Disposal Act as amended by the Resource Conservation and Recovery Act (42 U.S.C. 6901 *et seq.* );
  - (4) National Historic Preservation Act, as amended (16 U.S.C. 470 *et seq.* );
  - (5) Archaeological and Historical Preservation Act, as amended (16 U.S.C. 469 *et seq.* );
  - (6) Archaeological Resources Protection Act, as amended (16 U.S.C. 470aa *et seq.* ); and
  - (7) Native American Graves Protection and Repatriation Act, as amended (25 U.S.C. 3001 *et seq.* ).
- (d) Resource protection. The following additional resource protection provisions apply to oil shale operations:

(1) Operators must comply with applicable Federal and state standards for the disposal and treatment of solid wastes. All garbage, refuse, or waste must either be removed from the affected lands' or disposed of or treated to minimize, so far as is practicable, their impact on the lands, water, air, and biological resources;

(2) Operators must conduct operations in a manner to prevent adverse impacts to threatened or endangered species and any of their habitat that may be affected by operations.

(3) If the operator encounters any scientifically important paleontological remains or any historical or archaeological site, structure, building, or object on Federal lands, it must immediately notify the BLM. Operators must not, without prior BLM approval, knowingly disturb, alter, damage, or destroy any scientifically important paleontological remains or any historical or archaeological site, structure, building, or object on Federal lands.

### **§ 3930.30 Diligent development milestones.**

(a) Operators must diligently develop the oil shale resources consistent with the terms and conditions of the lease, POD, and these regulations. If the operator does not maintain or comply with diligent development milestones, the BLM may initiate lease cancellation. In order to be considered diligently developing the lease, the lessee/operator must comply with the following diligence milestones:

(1) Milestone 1. Within 2 years of the lease issuance date, submit to the proper BLM office an initial POD that meets the requirements of subpart 3931. The operator must revise the POD following subpart 3931, if the BLM determines that the initial POD is unacceptable;

(2) Milestone 2. Within 3 years of the lease issuance date, submit a final POD. The BLM may, based on circumstances beyond the control of the lessee or operator, or on the complexity of the POD, grant a 1 year extension to the lessee or operator to submit a complete POD;

(3) Milestone 3. Within 2 years after the BLM approves the final POD, apply for all required Federal and state permits and licenses;

(4) Milestone 4. Before the end of the 7th year after lease issuance, begin permitted infrastructure installation, as required by the BLM approved POD; and

(5) Milestone 5. Before the end of the 10th year after lease issuance, begin oil shale production.

(b) Operators may apply for additional time to complete a milestone. The BLM may grant additional time for completing a milestone if the operator provides documentation that shows to the BLM's satisfaction that achieving the milestone by the deadline is not possible for reasons that are beyond the control of the operator. Allowable time extensions to meet milestone 4 will extend the requirement to begin production in the 10th lease year by an amount of time equal to the extension granted for milestone 4. This extension also extends the requirements for payments in lieu of production and minimum production under paragraphs (c), (d), and (e) of this section.

(c) Operators must maintain minimum annual production every year after the 10th lease year or pay in lieu of production according to the lease terms.

(d) Each lease will provide for minimum production. The minimum production requirement stated in the lease must be met by the end of the 10th lease year and will be based on the BLM's estimate of the extraction technology to be used, the recoverable resources on the lease, expected life of the operation, and other factors the BLM considers.

(e) Each lease will provide for payment in lieu of the minimum production for any particular year starting in the 10th lease year. Payments in lieu of production in year 10 of the lease satisfies Milestone 5 in paragraph (a)(5) of this section.

## **§ 3930.40 Assessments for missing diligence milestones.**

The BLM will assess \$50 for each acre in the lease for each missed diligence milestone each year, prorated on a daily basis, until the operator or lessee complies with §3930.30(a). For example: If the operator does not submit the required POD within the required 2 years after lease issuance (the first milestone), the BLM will assess the operator \$50 per acre per year until the milestone is met. If the operator does not meet the second milestone, the BLM will assess the operator an additional \$50 per acre per year, resulting in a total assessment of \$100 per acre per year. If the operator does not begin production by the end of the initial lease term, or make payments in lieu thereof, the BLM may initiate lease cancellation procedures (see §§3934.21 and 3934.22).

## **Subpart 3931—Plans of Development and Exploration Plans**

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

(a) The POD must provide for reasonable protection and reclamation of the environment and the protection and diligent development of the oil shale resources in the lease.

(b) The operator must submit to the proper BLM office an exploration plan or POD describing in detail the proposed exploration, testing, development, or mining operations to be conducted. Exploration plans or PODs must be consistent with the requirements of the lease or exploration license and protect nonmineral resources and provide for the reclamation of the lands affected by the operations on Federal lease(s) or exploration license(s). All PODs and exploration plans must be submitted to the proper BLM office.

(c) The lessee or operator must submit 3 copies of the POD to the proper BLM office or submit it in an acceptable electronic format. Contact the proper BLM office for detailed information on submitting copies electronically ( see §3931.40 for submission of exploration plans).

(d) The BLM will consult with any other Federal, state, or local agencies involved and review the plan. The BLM may require additional information or changes in the plan before approving it. If the BLM denies the plan, it will set forth why it was denied.

(e) All development and exploration activities must comply with the BLM-approved POD or exploration plan.

(f) Activities under §§3931.11 and 3931.40, other than casual use, may not begin until appropriate NEPA analysis is completed and the BLM approves an exploration plan or POD.

### **§ 3931.11 Content of plan of development.**

The POD must contain, at a minimum, the following:

(a) Names, addresses, and telephone numbers of those responsible for operations to be conducted under the approved plan and to whom notices and orders are to be delivered, names and addresses of Federal oil shale lessees and corresponding Federal lease serial numbers, and names and addresses of surface and mineral owners of record, if other than the United States;

(b) A general description of geologic conditions and mineral resources within the area where mining is to be conducted, including appropriate maps;

(c) A copy of a suitable map or aerial photograph showing the topography, the area covered by each lease, the name and location of major topographic and cultural features;

(d) A statement of proposed methods of operation and development, including the following items as appropriate:

- (1) A description detailing the extraction technology to be used;
- (2) The equipment to be used in development and extraction;
- (3) The proposed access roads;
- (4) The size, location, and schematics of all structures, facilities, and lined or unlined pits to be built;
- (5) The stripping ratios, development sequence, and schedule;
- (6) The number of acres in the Federal lease(s) or license(s) to be affected;
- (7) Comprehensive well design and procedure for drilling, casing, cementing, testing, stimulation, clean-up, completion, and production, for all drilled well types, including those used for heating, freezing, and disposal;
- (8) A description of the methods and means to protect and monitor all aquifers;
- (9) Surveyed well location plats or project-wide well location plats;
- (10) A description of the measurement and handling of produced fluids, including the anticipated production rates and estimated recovery factors;
- (11) A description of the methods used to dispose of and control mining waste; and
- (12) A description/discussion of the controls that the operator will use to protect the public, including identification of:
  - (i) Essential operations, personnel, and health and safety precautions;
  - (ii) Programs and plans for noxious gas control (hydrogen sulfide, ammonia, etc.);
  - (iii) Well control procedures;
  - (iv) Temporary abandonment procedures; and
  - (v) Plans to address spills, leaks, venting, and flaring;
- (e) An estimate of the quantity and quality of the oil shale resources;
- (f) An explanation of how MER of the resource will be achieved for each Federal lease;
- (g) Appropriate maps and cross sections showing:
  - (1) Federal lease boundaries and serial numbers;
  - (2) Surface ownership and boundaries;
  - (3) Locations of any existing and abandoned mines and existing oil and gas well (including well bore trajectories) and water well locations, including well bore trajectories;
  - (4) Typical geological structure cross sections;
  - (5) Location of shafts or mining entries, strip pits, waste dumps, retort facilities, and surface facilities;

(6) Typical mining or in situ development sequence, with appropriate time-frames;

(h) A narrative addressing the environmental aspects of the proposed mine or in situ operation, including at a minimum, the following:

(1) An estimate of the quantity of water to be used and pollutants that may enter any receiving waters;

(2) A design for the necessary impoundment, treatment, control, or injection of all produced water, runoff water, and drainage from workings; and

(3) A description of measures to be taken to prevent or control fire, soil erosion, subsidence, pollution of surface and ground water, pollution of air, damage to fish or wildlife or other natural resources, and hazards to public health and safety;

(i) A reclamation plan and schedule for all Federal lease(s) or exploration license(s) that details all reclamation activities necessary to fulfill the requirements of §3931.20;

(j) The method of abandonment of operations on Federal lease(s) and exploration license(s) proposed to protect the unmined recoverable reserves and other resources, including:

(1) The method proposed to fill in, fence, or close all surface openings that are hazardous to people or animals; and

(2) For in situ operations, a description of the method and materials to be used to plug all abandoned development or production wells; and

(k) Any additional information that the BLM determines is necessary for analysis or approval of the POD.

#### **§ 3931.20 Reclamation.**

(a) The operator or lessee must restore the disturbed lands to their pre-mining or pre-exploration use or to a higher use agreed to by the BLM and the lessee.

(b) The operator must reclaim the area disturbed by taking reasonable measures to prevent or control onsite and offsite damage to lands and resources.

(c) Reclamation includes, but is not limited to:

(1) Measures to control erosion, landslides, and water runoff;

(2) Measures to isolate, remove, or control toxic materials;

(3) Reshaping the area disturbed, application of the topsoil, and re-vegetation of disturbed areas, where reasonably practicable; and

(4) Rehabilitation of fisheries and wildlife habitat.

(d) The operator or lessee must substantially fill in, fence, protect, or close all surface openings, subsidence holes, surface excavations, or workings which are a hazard to people or animals. These protected areas must be maintained in a secure condition during the term of the lease or exploration license. During reclamation, but before abandonment of operations, all openings, including water discharge points, must be closed to the BLM's satisfaction. For in situ operations, all drilled holes must be plugged and abandoned, as required by the approved plan.



(e) The operator or lessee must reclaim or protect surface areas no longer needed for operations as contemporaneously as possible as required by the approved plan.

### **§ 3931.30 Suspension of operations and production.**

(a) The BLM may, in the interest of conservation, agree to a suspension of lease operations and production. Applications by lessees for suspensions of operations and production must be filed in duplicate in the proper BLM office and must explain why it is in the interest of conservation to suspend operations and production.

(b) The BLM may order a suspension of operations and production if the suspension is necessary to protect the resource or the environment:

(1) While the BLM performs necessary environmental studies or analysis;

(2) To ensure that necessary environmental remediation or cleanup is being performed as a result of activity or inactivity on the part of the operator; or

(3) While necessary environmental remediation or cleanup is being performed as a result of unwarranted or unexpected actions.

(c) The term of any lease will be extended by adding thereto any period of suspension of operations and production during such term.

(d) A suspension will take effect on the date the BLM specifies. Rental, upcoming diligent development milestones, and minimum annual production will be suspended:

(1) During any period of suspension of operations and production beginning with the first day of the lease month on which the suspension of operations and production is effective; or

(2) If the suspension of operations and production is effective on any date other than the first day of a lease month, beginning with the first day of the lease month following such effective date.

(e) The suspension of rental and minimum annual production will end on the first day of the lease month in which the suspension ends.

(f) The minimum annual production requirements of a lease will be proportionately reduced for that portion of a lease year for which a suspension of operations and production is directed or granted by the BLM, as would any payments in lieu of production.

### **§ 3931.40 Exploration.**

To conduct exploration operations under an exploration license or on a lease after lease issuance, but prior to approval of the POD, the following rules apply:

(a) Except for casual use, before conducting any exploration operations on federally-leased or federally-licensed lands, the operator or lessee must submit to the proper BLM office for approval 3 copies of the exploration plan or a copy of the plan in an acceptable electronic format. Contact the proper BLM office for detailed information on submitting copies electronically. As used in this paragraph, casual use means activities that do not cause appreciable surface disturbance or damage to lands or other resources and improvements. Casual use does not include use of heavy equipment, explosives, or vehicular movement off established roads and trails.

(b) The exploration activities must be consistent with the requirements of the underlying Federal lease or exploration license, and address protection of recoverable oil shale reserves and other resources and reclamation of the surface of the lands affected by the exploration operations. The exploration plan must

meet the requirements of §3931.20 and must show how reclamation will be an integral part of the proposed operations and that reclamation will progress as contemporaneously as practicable with operations.

**§ 3931.41 Content of exploration plan.**

Exploration plans must contain the following:

- (a) The name, address, and telephone number of the applicant, and, if applicable, that of the operator or lessee of record;
- (b) The name, address, and telephone number of the representative of the applicant who will be present during, and responsible for, conducting exploration;
- (c) A description of the proposed exploration area, cross-referenced to the map required under paragraph (h) of this section, including:
  - (1) Applicable Federal lease and exploration license serial numbers;
  - (2) Surface topography;
  - (3) Geologic, surface water, and other physical features;
  - (4) Vegetative cover;
  - (5) Endangered or threatened species listed under the Endangered Species Act of 1973 (16 U.S.C. 1531 *et seq.*) that may be affected by exploration operations;
  - (6) Districts, sites, buildings, structures, or objects listed on, or eligible for listing on, the National Register of Historic Places that may be present in the lease area; and
  - (7) Known cultural or archaeological resources located within the proposed exploration area;
- (d) A description of the methods to be used to conduct oil shale exploration, reclamation, and abandonment of operations including, but not limited to:
  - (1) The types, sizes, numbers, capacity, and uses of equipment for drilling and blasting, and road or other access route construction;
  - (2) Excavated earth-disposal or debris-disposal activities;
  - (3) The proposed method for plugging drill holes; and
  - (4) The estimated size and depth of drill holes, trenches, and test pits;
- (e) An estimated timetable for conducting and completing each phase of the exploration, drilling, and reclamation;
- (f) The estimated amounts of oil shale or oil shale products to be removed during exploration, a description of the method to be used to determine those amounts, and the proposed use of the oil shale or oil shale products removed;
- (g) A description of the measures to be used during exploration for Federal oil shale to comply with the performance standards for exploration (§§3930.10 and 3930.11);

(h) A map at a scale of 1:24,000 or larger showing the areas of land to be affected by the proposed exploration and reclamation. The map must show:

- (1) Existing roads, occupied dwellings, and pipelines;
- (2) The proposed location of trenches, roads, and other access routes and structures to be constructed;
- (3) Applicable Federal lease and exploration license boundaries;
- (4) The location of land excavations to be conducted;
- (5) Oil shale exploratory holes to be drilled or altered;
- (6) Earth-disposal or debris-disposal areas;
- (7) Existing bodies of surface water; and
- (8) Topographic and drainage features; and

(i) The name and address of the owner of record of the surface land, if other than the United States. If the surface is owned by a person other than the applicant or if the Federal oil shale is leased to a person other than the applicant, include evidence of authority to enter that land for the purpose of conducting exploration and reclamation.

#### **§ 3931.50 Exploration plan and plan of development modifications.**

(a) The operator or lessee may apply in writing to the BLM for modification of the approved exploration plan or POD to adjust to changed conditions, new information, improved methods, and new or improved technology or to correct an oversight. To obtain approval of an exploration plan or POD modification, the operator or lessee must submit to the proper BLM office a written statement of the proposed modification and the justification for such modification.

(b) The BLM may require a modification of the approved exploration plan or POD.

(c) The BLM may approve a partial exploration plan or POD, if circumstances warrant, or if development of an exploration or POD for the entire operation is dependent upon unknown factors that cannot or will not be determined until operations progress. The operator or lessee must not, however, perform any operation not covered in a BLM-approved plan.

#### **§ 3931.60 Maps of underground and surface mine workings and in situ surface operations.**

Maps of underground workings and surface operations must be to a scale of 1:24,000 or larger if the BLM requests it. All maps must be appropriately marked with reference to government land marks or lines and elevations with reference to sea level. When required by the BLM, include vertical projections and cross sections in plan views. Maps must be based on accurate surveys and certified by a professional engineer, professional land surveyor, or other professionally qualified person. Accurate copies of such maps must be furnished by the operator to the BLM when and as required. All maps submitted must be in a format acceptable to the BLM. Contact the proper BLM office for information on what is the acceptable format to submit maps.

#### **§ 3931.70 Production maps and production reports.**

(a) Report production of all oil shale products or by-products to the BLM on a quarterly basis no later than 30 calendar days after the end of the reporting period.

(b) Report all production and royalty information to the MMS under 30 CFR parts 210 and 216.

(c) Submit production maps to the proper BLM office no later than 30 calendar days after the end of each royalty reporting period or on a schedule determined by the BLM. Show all excavations in each separate bed or deposit on the maps so that the production of minerals for any period can be accurately ascertained. Production maps must also show surface boundaries, lease boundaries, topography, and subsidence resulting from mining activities.

(d) If the lessee or operator does not provide the BLM the maps required by this section, the BLM will employ a licensed mine surveyor to make a survey and maps of the mine, and the cost will be charged to the operator or lessee.

(e) If the BLM believes any map submitted by an operator or lessee is incorrect, the BLM may have a survey performed, and if the survey shows the map submitted by the operator or lessee to be substantially incorrect in whole or in part, the cost of performing the survey and preparing the map will be charged to the operator or lessee.

(f) For in situ development operations, the lessee or operator must submit a map showing all surface installations, including pipelines, meter locations, or other points of measurement necessary for production verification as part of the POD. All maps must be modified as necessary for adequate representation of existing operations.

(g) Within 30 calendar days after well completion, the lessee or operator must submit to the proper BLM office 2 copies of a completed Form 3160-4, Well Completion or Recompletion Report and Log, limited to information that is applicable to oil shale operations. Well logs may be submitted electronically using a BLM-approved electronic format. Describe surface and bottom-hole locations in latitude and longitude.

#### **§ 3931.80 Core or test hole samples and cuttings. ↑**

(a) Within 90 calendar days after drilling completion, the operator or lessee must submit to the proper BLM office a signed copy of records of all core or test holes made on the lands covered by the lease or exploration license. The records must show the position and direction of the holes on a map. The records must include a log of all strata penetrated and conditions encountered, such as water, gas, or unusual conditions, and copies of analysis of all samples. Provide this information to the proper BLM office in either paper copy or in a BLM-approved electronic format. Contact the proper BLM office for information on submitting copies electronically. Within 30 calendar days after its creation, the operator or lessee must also submit to the proper the BLM office a detailed lithologic log of each test hole and all other in-hole surveys or other logs produced. Upon the BLM's request, the operator or lessee must provide to the BLM splits of core samples and drill cuttings.

(b) The lessee or operator must abandon surface exploration drill holes for development or holes for exploration to the BLM's satisfaction by cementing or casing or by other methods approved in advance by the BLM. Abandonment must be conducted in a manner to protect the surface and not endanger any present or future underground or surface operation or any deposit of oil, gas, other mineral substances, or ground water.

(c) Operators may convert drill holes to surveillance wells for the purpose of determining the effect of subsequent operations upon the quantity, quality, or pressure of ground water or mine gases. The BLM may require such conversion or the operator may request that the BLM approve such conversion. Prior to lease or exploration license termination, all surveillance wells must be plugged and abandoned and reclaimed, unless the surface owner assumes responsibility for reclamation of such surveillance wells. The transfer of liability for reclamation will not be considered complete until the BLM approves it in writing.

(d) Drilling equipment must be equipped with blowout control devices suitable for the pressures encountered and acceptable to the BLM.

#### **§ 3931.100 Boundary pillars and buffer zones.**

(a) For underground mining operations, all boundary pillars must be at least 50 feet thick, unless otherwise specified in writing by the BLM. Boundary and other main pillars may be mined only with the BLM's prior written consent or on the BLM's order. For in-situ operations, a 50-foot buffer zone from the Federal lease line is required.

(b) If the oil shale on adjacent Federal lands has been worked out beyond any boundary pillar and no hazards exist, the operator or lessee must, on the BLM's written order, mine out and remove all available oil shale in such boundary pillar, both in the lands covered by the lease and in the adjacent Federal lands, when the BLM determines that such oil shale can be mined safely without undue hardship to the operator or lessee.

(c) If the mining rights in adjacent lands are privately owned or controlled, the lessee must have an agreement with the owners of such interests for the extraction of the oil shale in the boundary pillars.

### **Subpart 3932—Lease Modifications and Readjustments**

#### **§ 3932.10 Lease size modification.**

(a) A lessee may apply for a modification of a lease to include Federal lands adjacent to those in the lease. The total area of the lease, including the acreage in the modification application and any previously authorized modification, must not exceed the maximum lease size (see §3927.20).

(b) An application for modification of the lease size must:

(1) Be filed with the proper BLM office;

(2) Contain a legal land description of the additional lands involved;

(3) Contain an explanation of how the modification would meet the criteria in §3932.20(a) that qualify the lease for modification;

(4) Explain why the modification would be in the best interest of the United States;

(5) Include a nonrefundable processing fee that the BLM will determine under §3000.11 of this chapter; and

(6) Include a signed qualifications statement consistent with subpart 3902 of this chapter.

#### **§ 3932.20 Lease modification land availability criteria.**



(a) The BLM may grant a lease modification if:

(1) There is no competitive interest in the lands covered by the modification application;

(2) The lands covered by the modification application cannot be reasonably developed as part of another independent federally-approved operation;

(3) The modification would be in the public interest; and

(4) The modification does not cause a violation of lease size limitations under §3927.20 of this chapter or acreage limitations under §3901.20 of this chapter.

(b) The BLM may approve adding lands covered by the modification application to the existing lease without competitive bidding, but before the BLM will approve adding lands to the lease, the applicant must pay in advance the FMV for the interests to be conveyed.

(c) Before modifying a lease, the BLM will prepare any necessary NEPA analysis covering the proposed lease area under 40 CFR parts 1500 through 1508 and recover the cost of such analysis from the applicant.

#### **§ 3932.30 Terms and conditions of a modified lease.**

(a) The terms and conditions of a lease modified under this subpart will be made consistent with the laws, regulations, and land use plans applicable at the time the lands are added by the modification.

(b) The royalty rate for the lands in the modification is the same as for the lease.

(c) Before the BLM will approve a lease modification, the lessee must file a written acceptance of the conditions in the modified lease and a written consent of the surety under the bond covering the original lease as modified. The lessee must also submit evidence that the bond has been amended to cover the modified lease and pay BLM processing costs.

#### **§ 3932.40 Readjustment of lease terms.**

(a) Except as provided in paragraph (b) of this section, all leases are subject to readjustment of lease terms, conditions, and stipulations at the end of the first 20-year period (the primary term of the lease) and at the end of each 10-year period thereafter.

(b) Royalty rates will be subject to readjustment at the end of the primary term and every 20 years thereafter.

(c) At least 30 days prior to the expiration of the readjustment period, the BLM will notify the lessee by written decision if any readjustment is to be made and of the proposed readjusted lease terms, including any revised royalty rate.

(d) Readjustments may be appealed. In the case of an appeal, unless the readjustment is stayed by the IBLA or the courts, the lessee must comply with the revised lease terms, including any revised royalty rate, pending the outcome of the appeal.

### **Subpart 3933—Assignments and Subleases**



#### **§ 3933.10 Leases or licenses subject to assignment or sublease.**

Any lease may be assigned or subleased and any exploration license may be assigned in whole or in part to any person, association, or corporation that meets the qualification requirements in subpart 3902 of this chapter. The BLM may approve or disapprove assignments and subleases. A licensee proposing to transfer or assign a license must first offer, in writing, to all other participating parties in the license, the opportunity to acquire the license (the right of first refusal).

#### **§ 3933.20 Filing fees.**

Each application for assignment or sublease of record title or overriding royalty must include the filing fee found in the fee schedule in §3000.12 of this chapter. The BLM will not accept any assignment that does not include the filing fee.

### **§ 3933.31 Record title assignments.** ↑

(a) File in triplicate at the proper BLM office a separate instrument of assignment for each assignment. File the assignment application within 90 calendar days after the date of final execution of the assignment instrument and with it include the:

- (1) Name and current address of assignee;
- (2) Interest held by assignor and interest to be assigned;
- (3) Serial number of the affected lease or license and a description of the lands to be assigned as described in the lease or license;
- (4) Percentage of overriding royalties retained; and
- (5) Dated signature of assignor.

(b) The assignee must provide a single copy of the request for approval of assignment which must contain a:

- (1) Statement of qualifications and holdings as required by subpart 3902 of this chapter;
- (2) Date and the signature of the assignee; and
- (3) The filing fee found in the fee schedule in §3000.12 of this chapter.

(c) The approval of an assignment of all interests in a specific portion of the lands in a lease or license will create a separate lease or license, which will be given a new serial number.

[73 FR 69469, Nov. 18, 2008, as amended at 75 FR 55683, Sept. 14, 2010]

### **§ 3933.32 Overriding royalty interests.**



File at the proper BLM office, for record purposes only, all overriding royalty interest assignments within 90 calendar days after the date of execution of the assignment.

### **§ 3933.40 Account status.**

The BLM will not approve an assignment unless the lease or license account is in good standing.

### **§ 3933.51 Bond coverage.**

Before the BLM will approve an assignment, the assignee must submit to the proper BLM office a new bond in an amount to be determined by the BLM, or, in lieu thereof, documentation of consent of the surety on the present bond to the substitution of the assignee as principal (see subpart 3904 of this chapter).

### **§ 3933.52 Continuing responsibility under assignment and sublease.** ↑

(a) The assignor and its surety are responsible for the performance of any obligation under the lease or license that accrues prior to the effective date of the BLM's approval of the assignment. After the effective date of the BLM's approval of the assignment, the assignee and its surety are responsible for the performance of all lease or license obligations that accrue after the effective date of the BLM's approval of

the assignment, notwithstanding any terms in the assignment to the contrary. If the BLM does not approve the assignment, the purported assignor's obligation to the United States continues as though no assignment had been filed.

(b) After the effective date of approval of a sublease, the sublessor and sublessee are jointly and severally liable for the performance of all lease obligations, notwithstanding any terms in the sublease to the contrary.

#### **§ 3933.60 Effective date.** ↑

An assignment or sublease takes effect, so far as the United States is concerned, on the first day of the month following the BLM's final approval, or if the assignee requests it in advance, the first day of the month of the approval.

#### **§ 3933.70 Extensions.** ↑

The BLM's approval of an assignment or sublease does not extend the term or the readjustment period of the lease (see §3932.40) or the term of the exploration license.

### **Subpart 3934—Relinquishments, Cancellations, and Terminations** ↑

#### **§ 3934.10 Relinquishments.** ↑

(a) A lease or exploration license or any legal subdivision thereof may be surrendered by the record title holder by filing a written relinquishment, in triplicate, in the BLM State Office having jurisdiction over the lands covered by the relinquishment.

(b) To be relinquished, the lease account must be in good standing and the relinquishment must be considered to be in the public interest.

(c) A relinquishment will take effect on the date the BLM approves it, subject to the:

(1) Continued obligation of the lessee or licensee and surety to make payments of all accrued rentals and royalties;

(2) The proper rehabilitation of the lands to be relinquished to a condition acceptable to the BLM under these regulations;

(3) Terms of the lease or license; and

(4) Approved exploration plan or development plan.

(d) Prior to relinquishment of an exploration license, the licensee must give any other parties participating in activities under the exploration license the opportunity to take over operations under the exploration license. The licensee must provide to the BLM written evidence that the offer was made to all other parties participating in the exploration license.

#### **§ 3934.21 Written notice of default.**

The BLM will provide the lessee or licensee written notice of any default, breach, or cause of forfeiture, and provide a time period of 30 calendar days to correct the default, to request an extension of time in which to correct the default, or to submit evidence showing why the BLM is in error and why the lease should not be canceled or exploration license terminated.

#### **§ 3934.22 Causes and procedures for lease cancellation.** ↑



(a) The BLM will take appropriate steps in a United States District Court of competent jurisdiction to institute proceedings for the cancellation of the lease if the lessee:

(1) Does not comply with the provisions of the Act as amended and other relevant statutes;

(2) Does not comply with any applicable regulations; or

(3) Defaults in the performance of any of the terms, covenants, and stipulations of the lease, and the BLM does not formally waive the default, breach, or cause of forfeiture.

(b) A waiver of any particular default, breach, or cause of forfeiture will not prevent the cancellation and forfeiture of the lease for any other default, breach, or cause of forfeiture, or for the same cause occurring at any other time.

### **§ 3934.30 License terminations.** ↑

The BLM may terminate an exploration license if:

(a) The BLM issued it in violation of any law or regulation, or if there are substantive factual errors, such as a lack of title;

(b) The licensee does not comply with the terms and conditions of the exploration license; or

(c) The licensee does not comply with the approved exploration plan.

### **§ 3934.40 Payments due.**

If a lease is canceled or relinquished for any reason, all bonus, rentals, royalties, and minimum royalties paid will be forfeited, and any amounts not paid will be immediately payable to the United States.

### **§ 3934.50 Bona fide purchasers.** ↑

The BLM will not cancel a lease or an interest in a lease of a purchaser if at the time of purchase the purchaser was not aware and could not have reasonably determined from the BLM records the existence of a violation of any of the following:

(a) Federal regulatory requirements;

(b) The Act, as amended; or

(c) Lease terms and conditions.

## **Subpart 3935—Production and Sale Records** ↑

### **§ 3935.10 Accounting records.** ↑

(a) Operators or lessees must maintain records that provide an accurate account of, or include all:

(1) Oil shale mined;

(2) Oil shale put through the processing plant and retort;

(3) Mineral products produced and sold;

- (4) Shale oil products, shale gas, and shale oil by-products sold; and
  - (5) Shale oil products and by-products that are consumed on-lease for the beneficial use of the lease.
- (b) The records must include relevant quality analyses of oil shale mined or processed and of all products including synthetic petroleum, shale oil, shale gas, and shale oil by-products sold.
- (c) Production and sale records must be made available for the BLM's examination during regular business hours.

## **Subpart 3936—Inspection and Enforcement** ↑

### **§ 3936.10 Inspection of underground and surface operations and facilities.** ↑

Operators, licensees, or lessees must allow the BLM, at any time, either day or night, to inspect or investigate underground and surface mining, in situ, or exploration operations to determine compliance with lease or license terms and conditions, compliance with the approved exploration or development plans, and to verify production.

### **§ 3936.20 Issuance of notices of noncompliance and orders.**

- (a) If the BLM determines that an operator, licensee, or lessee has not complied with established requirements, the BLM will issue to the operator, licensee, or lessee a notice of noncompliance.
- (b) If operations threaten immediate, serious, or irreparable damage to the environment, the mine or deposit being mined, or other valuable mineral deposits or other resources, the BLM will order the cessation of operations and will require the operator, licensee, or lessee to revise the POD or exploration plan.
- (c) The operator, licensee, or lessee will be considered to have received all orders or notices of noncompliance and orders that the operator, licensee, or lessee receives by personal delivery or certified mail. The BLM will consider service of any notice of noncompliance or order to have occurred 7 business days after the date the notice or order is mailed. Verbal orders and notices may be given to officials at the mine or exploration site, but the BLM will confirm them in writing within 10 business days.

### **§ 3936.30 Enforcement of notices of noncompliance and orders.**

- (a) If the operator, licensee, or lessee does not take action in accordance with the notice of noncompliance, the BLM may issue an order to suspend or cease operations or initiate legal proceedings to cancel the lease or terminate the license under subpart 3934 .
- (1) A notice of noncompliance will state how the operator, licensee, or lessee has not complied with established requirements, and will specify the action which must be taken to correct the noncompliance and the time limits within which such action must be taken. The operator, licensee, or lessee must notify the BLM when noncompliance items have been corrected.
- (2) If the operator, licensee, or lessee does not comply with the notice of noncompliance or order within the specified time frame, the operator, licensee, or lessee may be ordered to pay an assessment of \$500 per day for each incident of noncompliance that is not corrected until the noncompliance is corrected to the BLM's satisfaction.
- (3) Noncompliance with the approved exploration or development plan that results in wasted resource may result in the lessee or licensee being assessed royalty at the market value, in addition to the noncompliance assessment.
- (b) If the BLM determines that the failure to comply with the exploration or development plan threatens health or human safety or immediate, serious, or irreparable damage to the environment, the mine or the

deposit being mined or explored, or other valuable mineral deposits or other resources, the BLM may, either in writing or verbally followed with written confirmation within 5 business days, order the cessation of operations or exploration without prior notice.

#### **§ 3936.40 Appeals.** ↑

Notices of noncompliance and orders or decisions issued under the regulations in this part may be appealed as provided in part 4 of this title. All decisions and orders by the BLM under this part remain effective pending appeal unless the BLM decides otherwise. A petition for the stay of a decision may be filed with the IBLA.