

**Subpart 3591—General Obligations of Lessees, Licensees and Permittees**

**Subpart 3592—Plans and Maps**

**§ 3591.1 General obligations of lessees, licensees and permittees.**

**§ 3592.1 Operating plans.**

(a) Operations for the discovery, testing, development, mining or processing of minerals shall conform to the established requirements.

(a) Before conducting any operations under any lease(s), license(s), or permit(s), the operator shall submit to the authorized officer an exploration or mining plan which shall show in detail the proposed exploration, prospecting, testing, development or mining operations to be conducted. Exploration and mining plans shall be consistent with and responsive to the requirements of the lease, license or permit for the protection of nonmineral resources and for the reclamation of the surface of the lands affected by the operations on Federal or Indian lease(s), license(s), or permits. The authorized officer shall consult with any other agency involved, and shall promptly approve the plans or indicate what additional information is necessary to conform to the provisions of the established requirements. No operations shall be conducted except as provided in an approved plan.

(b) The surface of lease, license or permit lands shall be reclaimed in accordance with established requirements. Lessees, licensees or permittees shall take such action as may be needed to avoid, minimize or repair:

- (1) Waste and damage to mineral-bearing formations;
- (2) Soil erosion;
- (3) Pollution of the air;
- (4) Pollution of surface or ground water;
- (5) Damage to vegetation;
- (6) Injury to or destruction of fish or wildlife and their habitat;
- (7) Creation of unsafe or hazardous conditions;
- (8) Damage to improvements; and
- (9) Damage to recreation, scenic, historical and ecological values of the lands.
- (10) Damage to scientifically significant paleontological and archaeological resources.

(b) The exploration plan shall be submitted in accordance with mineral specific regulations in Group 3500 of this title (See subparts 3512, 3522, 3532, 3542, 3552 and 3562) and in accordance with 25 CFR 216.6 for Indian lands.

(c) All operations conducted under this part shall be consistent with Federal and State water and air quality standards.

(c) The lessee/operator shall submit 2 copies of the mining plan to the authorized officer for approval. An additional copy shall be submitted if the surface managing agency is other than the BLM. The mining plan shall contain, at a minimum, the following:

(d) Inundations, fires, fatal accidents, accidents threatening damage to the mine, the lands or the deposits, or conditions which could cause water pollution shall be reported promptly to the authorized officer. The notice required by this section shall be in addition to any notice or reports required by 30 CFR part 56 or 57, or other applicable regulations.

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

**§ 3591.2 Forms and reports.**

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

The operator shall submit production and royalty forms and reports to the Minerals Management Service in accordance with 30 CFR parts 216 and 218.

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

drainage plan away from the affected area;

(4) A statement of proposed methods, of operating, including a description of the surface or underground mining methods, the proposed roads, the size and location of structures and facilities to be built, mining sequence, production rate, estimated recovery factors, stripping ratios and number of acres in the Federal or Indian lease(s), license(s), or permit(s) to be affected;

(5) An estimate of the quantity and quality of the mineral resources, proposed cutoff grade and, if applicable, proposed blending procedures for all leases covered by the mining plan;

(6) An explanation of how ultimate maximum recovery of the resource will be achieved for the Federal or Indian lease(s). If a mineral deposit, or portion thereof, is not to be mined or is to be rendered unminable by the operation, the operator/lessee shall submit appropriate justification to the authorized officer for approval;

(7) Appropriate maps and cross sections showing:

(i) Federal or Indian lease boundaries and serial numbers;

(ii) Surface ownership and boundaries;

(iii) Locations of existing and abandoned mines;

(iv) Typical structure cross sections;

(v) Location of shafts or mining entries, strip pits, waste dumps, and surface facilities; and

(vi) Typical mining sequence, with appropriate timeframes;

(8) A narrative which addresses the environmental aspects associated with the proposed mine which includes, at a minimum, the following:

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

(ii) A design for the necessary impoundment, treatment or control of all runoff water and drainage from workings to reduce soil erosion and sedimentation and to prevent the pollution of receiving waters;

(iii) 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 nat-

ural resources and hazards to public health and safety; and

(9) A reclamation schedule and the measures to be taken for surface reclamation of the Federal or Indian lease(s), license(s), or permit(s) that will ensure compliance with the established requirements. In those instances in which the lease requires the revegetation of an area affected by operations, the mining plan shall show:

(i) Proposed methods of preparation and fertilizing the soil prior to replanting;

(ii) Types and mixtures of shrubs, trees or tree seedlings, grasses or legumes to be planted; and

(iii) Types and methods of planting, including the amount of grasses or legumes per acre, or the number and spacing of trees or tree seedlings, or combinations of grasses and trees;

(10) The method of abandonment of operations on Federal or Indian lease(s), license(s), and permit(s) proposed to protect the unmined recoverable reserves and other resources, including the method proposed to fill in, fence or close all surface openings which are a hazard to people or animals. Abandonment of operations also is subject to the provisions of subpart 3595 of this title; and

(11) Any additional information that the authorized officer deems necessary for approval of the plan.

(d)(1) Approved exploration and mining plans may be modified at any time to adjust to changed conditions or to correct an oversight. To obtain approval of an exploration or mining plan modification, the operator/lessee shall submit a written statement of the proposed modification and the justification for such modification. Any proposed exploration or mining plan modification(s) shall not be implemented unless previously approved by the authorized officer.

(2) The authorized officer may require a modification to the approved exploration or mining plan if conditions warrant.

(e) If circumstances warrant, or if development of an exploration or mining plan for the entire operation is dependent upon unknown factors which cannot or will not be determined except during the progress of the operations, a

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partial plan may be approved and supplemented from time to time. The operator/lessee shall not, however, perform any operation except under an approved plan.

### § 3592.2 Maps of underground workings and surface operations.

Maps of underground workings and surface operations shall be drawn to a scale acceptable to the authorized officer. All maps shall be appropriately marked with reference to Government land marks or lines and elevations with reference to sea level. When required by the authorized officer, vertical projections and cross sections shall accompany plan views. Maps shall be based on accurate surveys and certified by a professional engineer, professional land surveyor or other professionally qualified person. Accurate copies of such maps or reproductive material or prints thereof shall be furnished by the operator to the authorized officer when and as required.

### § 3592.3 Production maps.

(a) The operator shall prepare maps which show mineral production from the leased lands. All excavations in each separate bed or deposit shall be shown in such a manner that the production of minerals for any royalty period can be accurately ascertained. Maps submitted for in situ or solution mining shall show pipelines, meter locations, or other points of measurement necessary for production verification. Production maps shall be submitted to the authorized officer at the end of each royalty reporting period or on a schedule determined by the authorized officer. As appropriate or required by the authorized officer, production maps also shall show surface boundaries, lease boundaries and topography, including subsidence resulting from mining activities.

(b) In the event of failure of the operator to furnish the maps required by this section, the authorized officer shall employ a licensed mine surveyor to make a survey and maps of the mine, and the cost thereof shall be charged to and promptly paid by the operator/lessee.

(c) If the authorized officer believes any map submitted by an operator/les-

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see is incorrect, the authorized officer may cause a survey to be made, and if the survey shows the map submitted by the operator/lessee to be substantially incorrect in whole or in part, the cost of making the survey and preparing the map shall be charged to and promptly paid by the operator/lessee.

### Subpart 3593—Bore Holes and Samples

#### § 3593.1 Core or test hole cores, samples, cuttings.

(a) The operator/lessee shall submit promptly to the authorized officer a signed copy of records of all core or test holes made on the lands covered by the lease, license or permit. The records shall be in a form that will allow the position and direction of the holes to be located on a map. The records shall include a log of all strata penetrated and conditions encountered, such as water, gas or unusual conditions. Copies of analysis of all samples shall be transmitted to the authorized officer as soon as obtained or as requested by the authorized officer. The operator/lessee shall furnish the authorized officer a detailed lithologic log of each drill hole and all other in-hole surveys or other logs produced. The core from test holes shall be retained by the operator/lessee for 1 year or such other period as may be directed by the authorized officer, and shall be available for inspection by the authorized officer. The authorized officer may cut such cores and receive samples as appropriate. Upon the request of the authorized officer, the operator/lessee shall furnish samples of strata, drill cuttings and mill products.

(b) Surface drill holes for development or holes for prospecting shall be abandoned to the satisfaction of the authorized officer by cementing and/or casing or by other methods approved in advance by the authorized officer and in a manner to protect the surface and not endanger any present or future underground operation or any deposit of oil, gas, other mineral substances or aquifer.

(c) Logs and analyses of development holes shall not be required unless specifically requested by the authorized officer. Drill holes may be converted to