

concerning safety and health topics in mines, as determined appropriate by the Mine Safety and Health Administration.

**(e) Awarding of grants**

**(1) Annual basis**

Grants under this section shall be awarded on an annual basis.

**(2) Special emphasis**

In awarding grants under this section, the Secretary of Labor shall give special emphasis to programs and materials that target workers in smaller mines, including training miners and employers about new Mine Safety and Health Administration standards, high risk activities, or hazards identified by such Administration.

**(3) Priority**

In awarding grants under this section, the Secretary of Labor shall give priority to the funding of pilot and demonstration projects that the Secretary determines will provide opportunities for broad applicability for mine safety.

**(f) Evaluation**

The Secretary of Labor shall use not less than 1 percent of the funds made available to carry out this section in a fiscal year to conduct evaluations of the projects funded under grants under this section.

**(g) Authorization of appropriations**

There are authorized to be appropriated for each fiscal year, such sums as may be necessary to carry out this section.

(Pub. L. 109-236, §14, June 15, 2006, 120 Stat. 504.)

CODIFICATION

Section was enacted as part of the Mine Improvement and New Emergency Response Act of 2006, also known as the MINER Act, and not as part of the Federal Mine Safety and Health Act of 1977 which comprises this chapter.

**CHAPTER 23—GEOTHERMAL RESOURCES**

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**§ 1001. Definitions**

As used in this chapter, the term—

(a) “Secretary” means the Secretary of the Interior;

(b) “geothermal lease” means a lease issued under authority of this chapter;

(c) “geothermal resources” means (i) all products of geothermal processes, embracing indigenous steam, hot water and hot brines; (ii) steam and other gases, hot water and hot brines resulting from water, gas, or other fluids artificially introduced into geothermal formations; (iii) heat or other associated energy found in geothermal formations; and (iv) any byproduct derived from them;

(d) “byproduct” means any mineral or minerals (exclusive of oil, hydrocarbon gas, and helium) which are found in solution or in association with geothermal steam and which have a value of less than 75 per centum of the value of the geothermal steam or are not, because of quantity, quality, or technical difficulties in extraction and production, of sufficient value to warrant extraction and production by themselves;

(e) “known geothermal resources area” means an area in which the geology, nearby discoveries, competitive interests, or other indicia would, in the opinion of the Secretary, engender a belief in men who are experienced in the subject matter that the prospects for extraction of geothermal steam or associated geothermal resources are good enough to warrant expenditures of money for that purpose.

(f) “Significant<sup>1</sup> thermal features within units of the National Park System” shall include, but not be limited to, the following:

(1) Thermal features within units of the National Park System listed in Section<sup>1</sup> 1026(a)(1) of this title and designated as significant in the Federal Register notice of August 3, 1987 (Vol. 52, No. 148 Fed. Reg. 28790).

(2) Crater Lake National Park.

(3) Thermal features within Big Bend National Park and Lake Mead National Recreation Area proposed as significant in the Federal Register notice of February 13, 1987 (Vol. 52, No. 30 Fed. Reg. 4700).

(4) Thermal features within units of the National Park System added to the significant thermal features list pursuant to section 1026(a)(2) of this title.

(g) “direct use” means utilization of geothermal resources for commercial, residential, agricultural, public facilities, or other energy needs other than the commercial production of electricity; and<sup>2</sup>

<sup>1</sup> So in original. Probably should not be capitalized.

<sup>2</sup> So in original. Probably should end with a period instead of “; and”.

(Pub. L. 91-581, §2, Dec. 24, 1970, 84 Stat. 1566; Pub. L. 100-443, §2(a), Sept. 22, 1988, 102 Stat. 1766; Pub. L. 109-58, title II, §236(1), (2), (5), Aug. 8, 2005, 119 Stat. 671.)

#### AMENDMENTS

2005—Pub. L. 109-58, §236(5), inserted section catchline.

Par. (c). Pub. L. 109-58, §236(1), substituted “geothermal resources” for “geothermal steam and associated geothermal resources”.

Par. (g). Pub. L. 109-58, §236(2), added par. (g).

1988—Par. (f). Pub. L. 100-443 added par. (f).

#### SHORT TITLE OF 2005 AMENDMENT

Pub. L. 109-58, title II, §221, Aug. 8, 2005, 119 Stat. 660, provided that: “This subtitle [subtitle B (§§221-237) of title II of Pub. L. 109-58, enacting part B (§15871 et seq.) of subchapter II of chapter 149 of Title 42, The Public Health and Welfare, amending this section and sections 530 and 1002 to 1027 of this title, enacting provisions set out as notes under section 1004 of this title, and amending provisions set out as a note under this section] may be cited as the ‘John Rishel Geothermal Steam Act Amendments of 2005’.”

#### SHORT TITLE OF 1988 AMENDMENT

Pub. L. 100-443, §1, Sept. 22, 1988, 102 Stat. 1766, provided that: “This Act [enacting sections 1026 and 1027 of this title, amending this section and sections 191, 226-3, 1005, 1017, and 1019 of this title, and enacting provisions set out as notes under sections 1005 and 1026 of this title] may be known as the ‘Geothermal Steam Act Amendments of 1988’.”

#### SHORT TITLE

Pub. L. 91-581, §1, Dec. 24, 1970, 84 Stat. 1566, as amended by Pub. L. 109-58, title II, §236(4), Aug. 8, 2005, 119 Stat. 671, provided that: “This Act [enacting this chapter and amending section 530 of this title] may be cited as the ‘Geothermal Steam Act of 1970’.”

### § 1002. Lands subject to geothermal leasing

Subject to the provisions of section 1014 of this title, the Secretary of the Interior may issue leases for the development and utilization of geothermal resources (1) in lands administered by him, including public, withdrawn, and acquired lands, (2) in any national forest or other lands administered by the Department of Agriculture through the Forest Service, including public, withdrawn, and acquired lands, and (3) in lands which have been conveyed by the United States subject to a reservation to the United States of the geothermal resources therein.

(Pub. L. 91-581, §3, Dec. 24, 1970, 84 Stat. 1566; Pub. L. 109-58, title II, §236(1), (6), Aug. 8, 2005, 119 Stat. 671, 672.)

#### AMENDMENTS

2005—Pub. L. 109-58 inserted section catchline and substituted “geothermal resources” for “geothermal steam and associated geothermal resources” in two places in text.

### § 1002a. Repealed. Pub. L. 97-214, §7(16), July 12, 1982, 96 Stat. 174

Section, Pub. L. 95-356, title VIII, §803(a), (b), Sept. 8, 1978, 92 Stat. 585; Pub. L. 96-125, title VIII, §802(2), Nov. 26, 1979, 93 Stat. 948; Pub. L. 97-99, title IX, §908, Dec. 23, 1981, 95 Stat. 1385, related to development of geothermal energy sources on military lands, contracts for provision and operation of production facilities and energy purchases, and terms, conditions and prerequisites

of such contracts. See sections 2917 and 2922a of Title 10, Armed Forces.

Pub. L. 95-356, title VIII, §803(c), Sept. 8, 1978, 92 Stat. 585, which provided that this section take effect Oct. 1, 1978, was repealed by Pub. L. 97-214, §7(16), July 12, 1982, 96 Stat. 174.

#### EFFECTIVE DATE OF REPEAL

Repeal effective Oct. 1, 1982, and applicable to military construction projects, and to construction and acquisition of military family housing before, on, or after such date, see section 12(a) of Pub. L. 97-214, set out as an Effective Date note under section 2801 of Title 10, Armed Forces.

### § 1003. Leasing procedures

#### (a) Nominations

The Secretary shall accept nominations of land to be leased at any time from qualified companies and individuals under this chapter.

#### (b) Competitive lease sale required

##### (1) In general

Except as otherwise specifically provided by this chapter, all land to be leased that is not subject to leasing under subsection (c) of this section shall be leased as provided in this subsection to the highest responsible qualified bidder, as determined by the Secretary.

##### (2) Competitive lease sales

The Secretary shall hold a competitive lease sale at least once every 2 years for land in a State that has nominations pending under subsection (a) of this section if the land is otherwise available for leasing.

##### (3) Lands subject to mining claims

Lands that are subject to a mining claim for which a plan of operations has been approved by the relevant Federal land management agency may be available for noncompetitive leasing under this section to the mining claim holder.

#### (c) Noncompetitive leasing

The Secretary shall make available for a period of 2 years for noncompetitive leasing any tract for which a competitive lease sale is held, but for which the Secretary does not receive any bids in a competitive lease sale.

#### (d) Pending lease applications

##### (1) In general

It shall be a priority for the Secretary, and for the Secretary of Agriculture with respect to National Forest Systems land, to ensure timely completion of administrative actions, including amendments to applicable forest plans and resource management plans, necessary to process applications for geothermal leasing pending on August 8, 2005.<sup>1</sup> All future forest plans and resource management plans for areas with high geothermal resource potential shall consider geothermal leasing and development.

##### (2) Administration

An application described in paragraph (1) and any lease issued pursuant to the application—

<sup>1</sup> See Codification note below.

(A) except as provided in subparagraph (B), shall be subject to this section as in effect on the day before August 8, 2005; or

(B) at the election of the applicant, shall be subject to this section as in effect on August 8, 2005.

**(e) Leases sold as a block**

If information is available to the Secretary indicating a geothermal resource that could be produced as 1 unit can reasonably be expected to underlie more than 1 parcel to be offered in a competitive lease sale, the parcels for such a resource may be offered for bidding as a block in the competitive lease sale.

**(f) Leasing for direct use of geothermal resources**

Notwithstanding subsection (b) of this section, the Secretary may identify areas in which the land to be leased under this chapter exclusively for direct use of geothermal resources, without sale for purposes other than commercial generation of electricity, may be leased to any qualified applicant that first applies for such a lease under regulations issued by the Secretary, if the Secretary—

(1) publishes a notice of the land proposed for leasing not later than 90 days before the date of the issuance of the lease;

(2) does not receive during the 90-day period beginning on the date of the publication any nomination to include the land concerned in the next competitive lease sale; and

(3) determines there is no competitive interest in the geothermal resources in the land to be leased.

**(g) Area subject to lease for direct use**

**(1) In general**

Subject to paragraph (2), a geothermal lease for the direct use of geothermal resources shall cover not more than the quantity of acreage determined by the Secretary to be reasonably necessary for the proposed use.

**(2) Limitations**

The quantity of acreage covered by the lease shall not exceed the limitations established under section 1006 of this title.

(Pub. L. 91-581, § 4, Dec. 24, 1970, 84 Stat. 1566; Pub. L. 109-58, title II, §§ 222, 223(b), Aug. 8, 2005, 119 Stat. 660, 662.)

CODIFICATION

August 8, 2005, referred to in subsec. (d)(1), was in the original “the date of enactment of this subsection” which was translated as meaning the date of enactment of Pub. L. 109-58, which amended this section generally, to reflect the probable intent of Congress.

AMENDMENTS

2005—Pub. L. 109-58, § 222, inserted section catchline and amended text generally. Prior to amendment, text related to competitive bidding requirements, conversion of prior leases to geothermal leases, conflicting land interests, conversion of prior applications, acreage limitation, regulations, and time for payment.

Subsecs. (f), (g). Pub. L. 109-58, § 223(b), added subsecs. (f) and (g).

**§ 1004. Rents and royalties**

**(a) In general**

Geothermal leases shall provide for—

(1) a royalty on electricity produced using geothermal resources, other than direct use of geothermal resources, that shall be—

(A) not less than 1 percent and not more than 2.5 percent of the gross proceeds from the sale of electricity produced from such resources during the first 10 years of production under the lease; and

(B) not less than 2 and not more than 5 percent of the gross proceeds from the sale of electricity produced from such resources during each year after such 10-year period;

(2) a royalty on any byproduct that is a mineral specified in the first section of the Mineral Leasing Act (30 U.S.C. 181), and that is derived from production under the lease, at the rate of the royalty that applies under that Act [30 U.S.C. 181 et seq.] to production of the mineral under a lease under that Act; and

(3) payment in advance of an annual rental of not less than—

(A) for each of the 1st through 10th years of the lease—

(i) in the case of a lease awarded in a noncompetitive lease sale, \$1 per acre or fraction thereof; or

(ii) in the case of a lease awarded in a competitive lease sale, \$2 per acre or fraction thereof for the 1st year and \$3 per acre or fraction thereof for each of the 2nd through 10th years; and

(B) for each year after the 10th year of the lease, \$5 per acre or fraction thereof;<sup>1</sup>

**(b) Direct use**

**(1) In general**

Notwithstanding subsection (a)(1) of this section, the Secretary shall establish a schedule of fees, in lieu of royalties for geothermal resources, that a lessee or its affiliate—

(A) uses for a purpose other than the commercial generation of electricity; and

(B) does not sell.

**(2) Schedule of fees**

The schedule of fees—

(A) may be based on the quantity or thermal content, or both, of geothermal resources used;

(B) shall ensure a fair return to the United States for use of the resource; and

(C) shall encourage development of the resource.

**(3) State, tribal, or local governments**

If a State, tribal, or local government is the lessee and uses geothermal resources without sale and for public purposes other than commercial generation of electricity, the Secretary shall charge only a nominal fee for use of the resource.

**(4) Final regulation**

In issuing any final regulation establishing a schedule of fees under this subsection, the Secretary shall seek—

(A) to provide lessees with a simplified administrative system;

(B) to facilitate development of direct use of geothermal resources; and

<sup>1</sup> So in original. The semicolon probably should be a period.

(C) to contribute to sustainable economic development opportunities in the area.

**(c) Final regulation establishing royalty rates**

In issuing any final regulation establishing royalty rates under this section, the Secretary shall seek—

- (1) to provide lessees a simplified administrative system;
- (2) to encourage new development; and
- (3) to achieve the same level of royalty revenues over a 10-year period as the regulation in effect on August 8, 2005.

**(d) Credits for in-kind payments of electricity**

The Secretary may provide to a lessee a credit against royalties owed under this chapter, in an amount equal to the value of electricity provided under contract to a State or county government that is entitled to a portion of such royalties under section 1019 of this title, section 35 of the Mineral Leasing Act (30 U.S.C. 191), except as otherwise provided by this section, or section 355 of this title, if—

- (1) the Secretary has approved in advance the contract between the lessee and the State or county government for such in-kind payments;
- (2) the contract establishes a specific methodology to determine the value of such credits; and
- (3) the maximum credit will be equal to the royalty value owed to the State or county that is a party to the contract and the electricity received will serve as the royalty payment from the Federal Government to that entity.

**(e) Crediting of rental toward royalty**

Any annual rental under this section that is paid with respect to a lease before the first day of the year for which the annual rental is owed shall be credited to the amount of royalty that is required to be paid under the lease for that year.

**(f) Advanced royalties required for cessation of production**

**(1) In general**

Subject to paragraphs (2) and (3), if, at any time after commercial production under a lease is achieved, production ceases for any reason, the lease shall remain in full force and effect for a period of not more than an aggregate number of 10 years beginning on the date production ceases, if, during the period in which production is ceased, the lessee pays royalties in advance at the monthly average rate at which the royalty was paid during the period of production.

**(2) Reduction**

The amount of any production royalty paid for any year shall be reduced (but not below 0) by the amount of any advanced royalties paid under the lease to the extent that the advance royalties have not been used to reduce production royalties for a prior year.

**(3) Exceptions**

Paragraph (1) shall not apply if the cessation in production is required or otherwise caused by—

- (A) the Secretary;
- (B) the Secretary of the Air Force;
- (C) the Secretary of the Army;
- (D) the Secretary of the Navy;
- (E) a State or a political subdivision of a State; or
- (F) a force majeure.

**(g) Termination of lease for failure to pay rental**

**(1) In general**

The Secretary shall terminate any lease with respect to which rental is not paid in accordance with this chapter and the terms of the lease under which the rental is required, on the expiration of the 45-day period beginning on the date of the failure to pay the rental.

**(2) Notification**

The Secretary shall promptly notify a lessee that has not paid rental required under the lease that the lease will be terminated at the end of the period referred to in paragraph (1).

**(3) Reinstatement**

A lease that would otherwise terminate under paragraph (1) shall not terminate under that paragraph if the lessee pays to the Secretary, before the end of the period referred to in paragraph (1), the amount of rental due plus a late fee equal to 10 percent of the amount.

(Pub. L. 91-581, § 5, Dec. 24, 1970, 84 Stat. 1567; Pub. L. 109-58, title II, §§ 223(a), 224(a), 228, 230, 232, 233, 236(7), Aug. 8, 2005, 119 Stat. 661, 662, 667-670, 672.)

REFERENCES IN TEXT

The Mineral Leasing Act, referred to in subsec. (a)(2), is act Feb. 25, 1920, ch. 85, 41 Stat. 437, as amended, which is classified generally to chapter 3A (§181 et seq.) of this title. For complete classification of this Act to the Code, see Short Title note set out under section 181 of this title and Tables.

AMENDMENTS

2005—Pub. L. 109-58, §§ 223(a)(1)-(3), 224(a)(1), 228, 230(1)-(3), 233(a), 236(7), inserted section catchline, designated existing provisions as subsec. (a) and inserted heading, redesignated subpars. (1) and (2) of par. (c) as subpars. (A) and (B), respectively, redesignated pars. (a) to (d) as pars. (1) to (4), respectively, of subsec. (a), added new pars. (1) to (3) of subsec. (a) and struck out former pars. (1) to (4) of subsec. (a) which related to royalties for amount or value of steam or other form of heat energy, royalty for value of byproducts, payment of annual rental, and royalties in lieu of rentals.

Subsec. (b). Pub. L. 109-58, § 223(a)(4), added subsec. (b).

Subsecs. (c), (d). Pub. L. 109-58, § 224(a)(2), added subsecs. (c) and (d).

Subsec. (e). Pub. L. 109-58, § 230(4), added subsec. (e).

Subsec. (f). Pub. L. 109-58, § 232, added subsec. (f).

Subsec. (g). Pub. L. 109-58, § 233(b), added subsec. (g).

EFFECTIVE DATE OF 2005 AMENDMENT

Pub. L. 109-58, title II, § 223(c), Aug. 8, 2005, 119 Stat. 662, provided that: "The schedule of fees established under the amendment made by subsection (a)(4) [amending this section] shall apply with respect to payments under a lease converted under this subsection that are due and owing, and have been paid, on or after July 16, 2003. This subsection shall not require the refund of royalties paid to a State under section 20 of the Geothermal Steam Act of 1970 (30 U.S.C. 1019) prior to the date of enactment of this Act [Aug. 8, 2005]."

## INCENTIVES AND ROYALTIES FOR EXISTING LEASES

Pub. L. 109-58, title II, §224(c)-(e), Aug. 8, 2005, 119 Stat. 663, 664, provided that:

“(c) NEAR-TERM PRODUCTION INCENTIVE FOR EXISTING LEASES.—

“(1) IN GENERAL.—Notwithstanding section 5(a) of the Geothermal Steam Act of 1970 [30 U.S.C. 1004(a)], the royalty required to be paid shall be 50 percent of the amount of the royalty otherwise required, on any lease issued before the date of enactment of this Act [Aug. 8, 2005] that does not convert to new royalty terms under subsection (e)—

“(A) with respect to commercial production of energy from a facility that begins such production in the 6-year period beginning on the date of enactment of this Act; or

“(B) on qualified expansion geothermal energy.

“(2) 4-YEAR APPLICATION.—Paragraph (1) applies only to new commercial production of energy from a facility in the first 4 years of such production.

“(d) DEFINITION OF QUALIFIED EXPANSION GEOTHERMAL ENERGY.—In this section [amending this section and section 1019 of this title and enacting provisions set out as a note under this section], the term ‘qualified expansion geothermal energy’ means geothermal energy produced from a generation facility for which—

“(1) the production is increased by more than 10 percent as a result of expansion of the facility carried out in the 6-year period beginning on the date of enactment of this Act [Aug. 8, 2005]; and

“(2) such production increase is greater than 10 percent of the average production by the facility during the 5-year period preceding the expansion of the facility (as such average is adjusted to reflect any trend in changes in production during that period).

“(e) ROYALTY UNDER EXISTING LEASES.—

“(1) IN GENERAL.—Any lessee under a lease issued under the Geothermal Steam Act of 1970 (30 U.S.C. 1001 et seq.) before the date of enactment of this Act [Aug. 8, 2005] may, within the time period specified in paragraph (2), submit to the Secretary of the Interior a request to modify the terms of the lease relating to payment of royalties to provide—

“(A) in the case of a lease that meets the requirements of subsection (b) of section 5 of the Geothermal Steam Act of 1970 (30 U.S.C. 1004) (as amended by section 223), that royalties be based on the schedule of fees established under that section; and

“(B) in the case of any other lease, that royalties be computed on a percentage of the gross proceeds from the sale of electricity, at a royalty rate that is expected to yield total royalty payments equivalent to payments that would have been received for comparable production under the royalty rate in effect for the lease before the date of enactment of this subsection.

“(2) TIMING.—A request for a modification under paragraph (1) shall be submitted to the Secretary of the Interior by the date that is not later than—

“(A) in the case of a lease for direct use, 18 months after the effective date of the schedule of fees established by the Secretary of the Interior under section 5 of the Geothermal Steam Act of 1970 (30 U.S.C. 1004); or

“(B) in the case of any other lease, 18 months after the effective date of the final regulation issued under subsection (a) [amending this section].

“(3) APPLICATION OF MODIFICATION.—If the lessee requests modification of a lease under paragraph (1)—

“(A) the Secretary of the Interior shall, within 180 days after the receipt of the request for modification, modify the lease to comply with—

“(i) in the case of a lease for direct use, the schedule of fees established by the Secretary under section 5 of the Geothermal Steam Act of 1970 (30 U.S.C. 1004); or

“(ii) in the case of any other lease, the royalty for the lease established under paragraph (1)(B); and

“(B) the modification shall apply to any use of geothermal resources to which subsection (a) [amending this section] applies that occurs after the date of the modification.

“(4) CONSULTATION.—The Secretary of the Interior shall consult with the State and local governments affected by any proposed changes in lease royalty terms under this subsection.”

### § 1005. Lease term and work commitment requirements

#### (a) In general

##### (1) Primary term

A geothermal lease shall be for a primary term of 10 years.

##### (2) Initial extension

The Secretary shall extend the primary term of a geothermal lease for 5 years if, for each year after the 10th year of the lease—

(A) the Secretary determined under subsection (b) of this section that the lessee satisfied the work commitment requirements that applied to the lease for that year; or

(B) the lessee paid in annual payments accordance with subsection (c) of this section.

##### (3) Additional extension

The Secretary shall extend the primary term of a geothermal lease (after an initial extension under paragraph (2)) for an additional 5 years if, for each year of the initial extension under paragraph (2), the Secretary determined under subsection (b) of this section that the lessee satisfied the minimum work requirements that applied to the lease for that year.

#### (b) Requirement to satisfy annual minimum work requirement

##### (1) In general

The lessee for a geothermal lease shall, for each year after the 10th year of the lease, satisfy minimum work requirements prescribed by the Secretary that apply to the lease for that year.

##### (2) Prescription of minimum work requirements

The Secretary shall issue regulations prescribing minimum work requirements for geothermal leases, that—

(A) establish a geothermal potential; and

(B) if a geothermal potential has been established, confirm the existence of producible geothermal resources.

#### (c) Payments in lieu of minimum work requirements

In lieu of the minimum work requirements set forth in subsection (b)(2) of this section, the Secretary shall by regulation establish minimum annual payments which may be made by the lessee for a limited number of years that the Secretary determines will not impair achieving diligent development of the geothermal resource, but in no event shall the number of years exceed the duration of the extension period provided in subsection (a) of this section.

#### (d) Transition rules for leases issued prior to August 8, 2005

The Secretary shall by regulation establish transition rules for leases issued before August

8, 2005, including terms under which a lease that is near the end of its term on August 8, 2005, may be extended for up to 2 years—

(1) to allow achievement of production under the lease; or

(2) to allow the lease to be included in a producing unit.

**(e) Geothermal lease overlying mining claim**

**(1) Exemption**

The lessee for a geothermal lease of an area overlying an area subject to a mining claim for which a plan of operations has been approved by the relevant Federal land management agency is exempt from annual work requirements established under this chapter, if development of the geothermal resource subject to the lease would interfere with the mining operations under such claim.

**(2) Termination of exemption**

An exemption under this paragraph expires upon the termination of the mining operations.

**(f) Termination of application of requirements**

Minimum work requirements prescribed under this section shall not apply to a geothermal lease after the date on which the geothermal resource is utilized under the lease in commercial quantities.

**(g) Cooperative or unit plan for drilling operations; extension of term; renewal**

Any lease for land on which, or for which under an approved cooperative or unit plan of development or operation, actual drilling operations were commenced prior to the end of its primary term and are being diligently prosecuted at that time shall be extended for five years and so long thereafter, but not more than thirty-five years, as geothermal steam is produced or utilized in commercial quantities. If, at the end of such extended term, steam is being produced or utilized in commercial quantities and the lands are not needed for other purposes, the lessee shall have a preferential right to a renewal of such lease for a second term in accordance with such terms and conditions as the Secretary deems appropriate.

**(h) "Produced or utilized in commercial quantities" defined**

Except as otherwise provided for in this section, for purposes of this section the term "produced or utilized in commercial quantities" means the completion of a well producing geothermal steam in commercial quantities. Such term shall also include the completion of a well capable of producing geothermal steam in commercial quantities so long as the Secretary determines that diligent efforts are being made toward the utilization of the geothermal steam.

**(i) Principles for location of minerals under mining laws when minerals are not associated with geothermal resources**

Minerals locatable under the mining laws of the United States in lands subject to a geothermal lease issued under the provisions of this chapter which are not associated with the geothermal resources of such lands as defined in section 1001(c) of this title shall be locatable

under said mining laws in accordance with the principles of the Multiple Mineral Development Act (68 Stat. 708; found in 30 U.S.C. 521 et seq.).

(Pub. L. 91-581, § 6, Dec. 24, 1970, 84 Stat. 1568; Pub. L. 100-443, §§ 2(b), 3, Sept. 22, 1988, 102 Stat. 1766; Pub. L. 109-58, title II, §§ 231, 236(1), Aug. 8, 2005, 119 Stat. 668, 671.)

REFERENCES IN TEXT

The Multiple Mineral Development Act, referred to in subsec. (i), is act Aug. 13, 1954, ch. 730, 68 Stat. 708, as amended, which is classified principally to chapter 12 (§ 521 et seq.) of this title. For complete classification of this Act to the Code, see Short Title note set out under section 521 of this title and Tables.

CODIFICATION

August 8, 2005, referred to in introductory provisions of subsec. (d), was in the original "the date of the enactment of this subsection" and "the date of enactment of this subsection", which was translated as meaning the date of enactment of Pub. L. 109-58, which substantially amended this section, to reflect the probable intent of Congress.

AMENDMENTS

2005—Pub. L. 109-58 inserted section catchline, added subsecs. (a) to (f), redesignated former subsecs. (c), (d), and (f) as (g), (h), and (i), respectively, substituted "geothermal resources" for "geothermal steam and associated geothermal resources" in subsec. (i), and struck out former subsecs. (a), (b), (e), and (g) to (j), which related to primary and continuation terms, renewals, conversions to mineral leases, five-year extensions, bona fide effort requirement for extensions, payments in lieu of commercial quantities production, and significant expenditure, respectively.

1988—Subsec. (d). Pub. L. 100-443, § 2(b), amended subsec. (d) generally. Prior to amendment, subsec. (d) read as follows: "For purposes of subsection (a) of this section, production or utilization of geothermal steam in commercial quantities shall be deemed to include the completion of one or more wells producing or capable of producing geothermal steam in commercial quantities and a bona fide sale of such geothermal steam for delivery to or utilization by a facility or facilities not yet installed but scheduled for installation not later than fifteen years from the date of commencement of the primary term of the lease."

Subsecs. (g) to (j). Pub. L. 100-443, § 3, added subsecs. (g) to (j).

CONSISTENCY PROVISION

Pub. L. 100-443, § 9, Sept. 22, 1988, 102 Stat. 1771, provided that: "To the extent that any provision in this Act [see Short Title of 1988 Amendment note set out under section 1001 of this title] is inconsistent with the provisions of section 115(2) of title I of section 101(h) of Public Law 99-591 (100 Stat. 3341-264 through 100 Stat. 3341-266) [set out below], this Act shall be deemed to supersede the provisions of such section."

EXTENSION OF LEASE; LISTING, MONITORING AND PROTECTION OF SIGNIFICANT THERMAL FEATURES IN NATIONAL PARK SYSTEM; FACTORS CONSIDERED IN ISSUING OR DENYING LEASES; EFFECT ON OTHER PROVISIONS

Pub. L. 99-500, § 101(h) [title I, § 115], Oct. 18, 1986, 100 Stat. 1783-242, 1783-264, and Pub. L. 99-591, § 101(h) [title I, § 115], Oct. 30, 1986, 100 Stat. 3341-242, 3341-264, as amended by Pub. L. 106-510, § 3(a)(2), (b)(2), Nov. 13, 2000, 114 Stat. 2363, provided that:

"(1) The primary term of any geothermal lease in effect as of July 27, 1984, issued pursuant to the Geothermal [Steam] Act of 1970 (Public Law 91-581, 84 Stat. 1566, 30 U.S.C. 1001-1025) is hereby extended to December 31, 1988, if the Secretary of the Interior finds that—

“(a) a bona fide sale of the geothermal resource, from a well capable of production, for delivery to or utilization by a facility or facilities, has not been completed (1) due to administrative delays by government entities, beyond the control of the lessee, or (2) such sale would be uneconomic;

“(b) substantial investment in the development of or for the benefit of the lease has been made; and

“(c) the lease would otherwise expire prior to December 31, 1988.

“(2)(a) The Secretary of the Interior (hereinafter in this section referred to as ‘the Secretary’ shall publish for public comment in the Federal Register within 120 days after the date of enactment of this section [Oct. 18, 1986] a proposed list of significant thermal features within the following units of the National Park System:

“Mount Rainier National Park;  
 “Lassen Volcanic National Park;  
 “Yellowstone National Park;  
 “Bering Land Bridge National Preserve;  
 “Gates of the Arctic National Park and Preserve;  
 “Yukon-Charley Rivers National Preserve;  
 “Katmai National Park;  
 “Aniakchak National Monument and Preserve;  
 “Wrangell-St. Elias National Park and Preserve;  
 “Glacier Bay National Park and Preserve;  
 “Denali National Park and Preserve;  
 “Lake Clark National Park and Preserve;  
 “Hot Springs National Park;  
 “Sequoia National Park;  
 “Hawai‘i Volcanoes National Park;  
 “Lake Mead National Recreation Area;  
 “Big Bend National Park;  
 “Olympic National Park;  
 “Grand Teton National Park;  
 “John D. Rockefeller, Jr. Memorial Parkway;  
 “Haleakalā National Park; and  
 “Crater Lake National Park.

The Secretary shall include with such list the basis for his determination with respect to each thermal feature on the list. Based on public comment on such list, the Secretary is authorized to make additions to or deletions from the list. Not later than the 60th day from the date on which the proposed list was published in the Federal Register, the Secretary shall transmit the list to the Committee on Energy and Natural Resources of the Senate and the Committee on Interior and Insular Affairs of the House of Representatives together with copies of all public comments which he has received and indicating any additions to or deletions from the list with a statement of the reasons therefor and the basis for inclusion of each thermal feature on the list. The Secretary shall consider the following criteria in determining the significance of thermal features:

“(1) size, extent, and uniqueness;

“(2) scientific and geologic significance;

“(3) the extent to which such features remain in a natural, undisturbed condition; and

“(4) significance of thermal features to the authorized purposes for which the National Park System unit was created.

The Secretary shall not issue any geothermal lease pursuant to the Geothermal Steam Act of 1970 (Public Law 91-581, 84 Stat. 1566), as amended [30 U.S.C. 1001 et seq.], until such time as the Secretary has transmitted the list to the Committees of Congress as provided in this section.

“(b) The Secretary shall maintain a monitoring program for those significant thermal features listed pursuant to subsection (a) of this section.

“(c) Upon receipt of an application for a geothermal lease the Secretary shall determine on the basis of scientific evidence if exploration, development, or utilization of the lands subject to the geothermal lease application is reasonably likely to result in a significant adverse effect on a significant thermal feature listed pursuant to subsection (a) of this section. Such determination shall be subject to notice and public comment. If

the Secretary determines on the basis of scientific evidence that the exploration, development, or utilization of the land subject to the geothermal lease application is reasonably likely to result in a significant adverse effect on a significant thermal feature listed pursuant to subsection (a) of this section, the Secretary shall not issue such geothermal lease. In addition, the Secretary shall withdraw from leasing under the Geothermal Steam Act of 1970, as amended, those lands, or portion thereof, subject to the application for geothermal lease, the exploration, development, or utilization of which is reasonably likely to result, based on the Secretary’s determination, in a significant adverse effect on a significant thermal feature listed pursuant to subsection (a) of this section.

“(d) With respect to all geothermal leases issued after the date of enactment of this section [Oct. 18, 1986] the Secretary shall include stipulations in leases necessary to protect significant thermal features listed pursuant to subsection (a) of this section where a determination is made based on scientific evidence that the exploration, development, or utilization of the lands subject to the lease is reasonably likely to adversely affect such significant features. Such stipulations shall include, but are not limited to:

“(1) requiring the lessee to reinject geothermal fluids into the rock formations from which they originate;

“(2) requiring the lessee to report annually to the Secretary on its activities;

“(3) requiring the lessee to continuously monitor geothermal production and injection wells; and

“(4) requiring the lessee to suspend activity, temporarily or permanently, on the lease if the Secretary determines that ongoing exploration, development, or utilization activities are having a significant adverse effect on significant thermal features listed pursuant to subsection (a) of this section until such time as the significant adverse effect is eliminated.

“(e) The Secretary of Agriculture shall consider the effects on significant thermal features of those units of the National Park System identified in subsection (a) of this section in determining whether to consent to leasing under the Geothermal Steam Act of 1970, as amended, on national forest or other lands administered by the Department of Agriculture available for leasing under the Geothermal Steam Act of 1970, as amended, including public, withdrawn, and acquired lands.

“(f) Nothing contained in this section shall affect the ban on leasing under the Geothermal Steam Act of 1970, as amended, with respect to the Island Park Known Geothermal Resources Area, as provided for in Public Law 98-473 (98 Stat. 1837) [see Tables for classification] and Public Law 99-190 (99 Stat. 1267) [see Tables for classification].

“(g) Except as provided herein, nothing contained in this section shall affect or modify the authorities or responsibilities of the Secretary under the Geothermal Steam Act of 1970, as amended, or any other provision of law.

“(h) The provisions of this section shall remain in effect until Congress determines otherwise.”

#### § 1006. Acreage limitations

A geothermal lease shall embrace a reasonably compact area of not more than 5,120 acres, except where a departure therefrom is occasioned by an irregular subdivision or subdivisions. No person, association, or corporation, except as otherwise provided in this chapter, shall take, hold, own, or control at one time, whether acquired directly from the Secretary under this chapter or otherwise, any direct or indirect interest in Federal geothermal leases in any one State exceeding 51,200 acres, including leases acquired under the provisions of section 1003 of this title.

(Pub. L. 91-581, §7, Dec. 24, 1970, 84 Stat. 1569; Pub. L. 109-58, title II, §235, Aug. 8, 2005, 119 Stat. 671.)

#### AMENDMENTS

2005—Pub. L. 109-58 inserted section catchline, substituted “5,120 acres” for “two thousand five hundred and sixty acres” and “51,200 acres” for “twenty thousand four hundred and eighty acres” in text, and struck out second par. which read as follows: “At any time after fifteen years from December 24, 1970, the Secretary, after public hearings, may increase this maximum holding in any one State by regulation, not to exceed fifty-one thousand two hundred acres.”

### § 1007. Readjustment of lease terms and conditions

#### (a) Initial readjustment; periodic intervals; notice; objections, relinquishment, and termination

The Secretary may readjust the terms and conditions, except as otherwise provided herein, of any geothermal lease issued under this chapter at not less than ten-year intervals beginning ten years after the date the geothermal steam is produced, as determined by the Secretary. Each geothermal lease issued under this chapter shall provide for such readjustment. The Secretary shall give notice of any proposed readjustment of terms and conditions, and, unless the lessee files with the Secretary objection to the proposed terms or relinquishes the lease within thirty days after receipt of such notice, the lessee shall conclusively be deemed to have agreed with such terms and conditions. If the lessee files objections, and no agreement can be reached between the Secretary and the lessee within a period of not less than sixty days, the lease may be terminated by either party.

#### (b) Rentals and royalties; initial readjustment; periodic intervals; limitation on increases and on royalties; notice; objections, relinquishment, and termination

The Secretary may readjust the rentals and royalties of any geothermal lease issued under this chapter at not less than twenty-year intervals beginning thirty-five years after the date geothermal steam is produced, as determined by the Secretary. In the event of any such readjustment neither the rental nor royalty may be increased by more than 50 per centum over the rental or royalty paid during the preceding period. Each geothermal lease issue<sup>1</sup> under this chapter shall provide for such readjustment. The Secretary shall give notice of any proposed readjustment of rentals and royalties, and, unless the lessee files with the Secretary objection to the proposed rentals and royalties or relinquishes the lease within thirty days after receipt of such notice, the lessee shall conclusively be deemed to have agreed with such terms and conditions. If the lessee files objections, and no agreement can be reached between the Secretary and the lessee within a period of not less than sixty days, the lease may be terminated by either party.

<sup>1</sup> So in original. Probably should be “issued”.

#### (c) Surface use, protection, or restoration of lands withdrawn or acquired for Federal agency; notice; approval of agency

Any readjustment of the terms and conditions as to use, protection, or restoration of the surface of any lease of lands withdrawn or acquired in aid of a function of a Federal department or agency other than the Department of the Interior may be made only upon notice to, and with the approval of, such department or agency.

(Pub. L. 91-581, §8, Dec. 24, 1970, 84 Stat. 1569; Pub. L. 109-58, title II, §§229, 236(8), Aug. 8, 2005, 119 Stat. 668, 672.)

#### AMENDMENTS

2005—Pub. L. 109-58, §236(8), inserted section catchline.

Subsec. (b). Pub. L. 109-58, §229, substituted “period” for “period, and in no event shall the royalty payable exceed 22½ per centum” in second sentence.

### § 1008. Byproducts

If the production, use, or conversion of geothermal steam is susceptible of producing a valuable byproduct or byproducts, including commercially demineralized water for beneficial uses in accordance with applicable State water laws, the Secretary shall require substantial beneficial production or use thereof unless, in individual circumstances he modifies or waives this requirement in the interest of conservation of natural resources or for other reasons satisfactory to him. However, the production or use of such byproducts shall be subject to the rights of the holders of preexisting leases, claims, or permits covering the same land or the same minerals, if any.

(Pub. L. 91-581, §9, Dec. 24, 1970, 84 Stat. 1570; Pub. L. 109-58, title II, §236(9), Aug. 8, 2005, 119 Stat. 672.)

#### AMENDMENTS

2005—Pub. L. 109-58 inserted section catchline.

### § 1009. Relinquishment of geothermal rights

The holder of any geothermal lease at any time may make and file in the appropriate land office a written relinquishment of all rights under such lease or of any legal subdivision of the area covered by such lease. Such relinquishment shall be effective as of the date of its filing. Thereupon the lessee shall be released of all obligations thereafter accruing under said lease with respect to the lands relinquished, but no such relinquishment shall release such lessee, or his surety or bond, from any liability for breach of any obligation of the lease, other than an obligation to drill, accrued at the date of the relinquishment, or from the continued obligation, in accordance with the applicable lease terms and regulations, (1) to make payment of all accrued rentals and royalties, (2) to place all wells on the relinquished lands in condition for suspension or abandonment, and (3) to protect or restore substantially the surface and surface resources.

(Pub. L. 91-581, §10, Dec. 24, 1970, 84 Stat. 1570; Pub. L. 109-58, title II, §236(10), Aug. 8, 2005, 119 Stat. 672.)



## AMENDMENTS

2005—Pub. L. 109-58 inserted section catchline.

**§ 1010. Suspension of operations and production**

The Secretary, upon application by the lessee, may authorize the lessee to suspend operations and production on a producing lease and he may, on his own motion, in the interest of conservation suspend operations on any lease but in either case he may extend the lease term for the period of any suspension, and he may waive, suspend, or reduce the rental or royalty required in such lease.

(Pub. L. 91-581, §11, Dec. 24, 1970, 84 Stat. 1570; Pub. L. 109-58, title II, §236(11), Aug. 8, 2005, 119 Stat. 672.)

## AMENDMENTS

2005—Pub. L. 109-58 inserted section catchline.

**§ 1011. Termination of leases**

Leases may be terminated by the Secretary for any violation of the regulations or lease terms after thirty days notice provided that such violation is not corrected within the notice period, or in the event the violation is such that it cannot be corrected within the notice period then provided that lessee has not commenced in good faith within said notice period to correct such violation and thereafter to proceed diligently to correct such violation. Lessee shall be entitled to a hearing on the matter of such claimed violation or proposed termination of lease if request for a hearing is made to the Secretary within the thirty-day period after notice. The period for correction of violation or commencement to correct such violation of regulations or of lease terms, as aforesaid, shall be extended to thirty days after the Secretary's decision after such hearing if the Secretary shall find that a violation exists.

(Pub. L. 91-581, §12, Dec. 24, 1970, 84 Stat. 1570; Pub. L. 109-58, title II, §236(12), Aug. 8, 2005, 119 Stat. 672.)

## AMENDMENTS

2005—Pub. L. 109-58 inserted section catchline.

**§ 1012. Waiver, suspension, or reduction of rental or royalty**

The Secretary may waive, suspend, or reduce the rental or royalty for any lease or portion thereof in the interests of conservation and to encourage the greatest ultimate recovery of geothermal resources, if he determines that this is necessary to promote development or that the lease cannot be successfully operated under the lease terms.

(Pub. L. 91-581, §13, Dec. 24, 1970, 84 Stat. 1570; Pub. L. 109-58, title II, §236(13), Aug. 8, 2005, 119 Stat. 672.)

## AMENDMENTS

2005—Pub. L. 109-58 inserted section catchline.

**§ 1013. Surface land use**

Subject to the other provisions of this chapter, a lessee shall be entitled to use so much of

the surface of the land covered by his geothermal lease as may be found by the Secretary to be necessary for the production, utilization, and conservation of geothermal resources.

(Pub. L. 91-581, §14, Dec. 24, 1970, 84 Stat. 1571; Pub. L. 109-58, title II, §236(14), Aug. 8, 2005, 119 Stat. 672.)

## AMENDMENTS

2005—Pub. L. 109-58 inserted section catchline.

**§ 1014. Lands subject to geothermal leasing****(a) Terms and conditions for lands withdrawn or acquired for Department of the Interior**

Geothermal leases for lands withdrawn or acquired in aid of functions of the Department of the Interior may be issued only under such terms and conditions as the Secretary may prescribe to insure adequate utilization of the lands for the purposes for which they were withdrawn or acquired.

**(b) Consent and terms and conditions for lands withdrawn or acquired for Department of Agriculture or for lands for power and related purposes**

Geothermal leases for lands withdrawn or acquired in aid of functions of the Department of Agriculture may be issued only with the consent of, and subject to such terms and conditions as may be prescribed by, the head of that Department to insure adequate utilization of the lands for the purposes for which they were withdrawn or acquired. Geothermal leases for lands to which section 818 of title 16 is applicable, may be issued only with the consent of, and subject to, such terms and conditions as the Secretary of Energy may prescribe to insure adequate utilization of such lands for power and related purposes.

**(c) Exemption of certain Federal lands**

Geothermal leases under this chapter shall not be issued for lands administered in accordance with (1) sections 1, 2, 3, and 4 of title 16, as amended or supplemented, (2) for lands within a national recreation area, (3) for lands in a fish hatchery administered by the Secretary, wildlife refuge, wildlife range, game range, wildlife management area, waterfowl production area, or for lands acquired or reserved for the protection and conservation of fish and wildlife that are threatened with extinction, (4) for tribally or individually owned Indian trust or restricted lands, within or without the boundaries of Indian reservations.

(Pub. L. 91-581, §15, Dec. 24, 1970, 84 Stat. 1571; Pub. L. 95-91, title III, §301(b), title VII, §§703, 707, Aug. 4, 1977, 91 Stat. 578, 606, 607; Pub. L. 109-58, title II, §236(15), Aug. 8, 2005, 119 Stat. 672.)

## AMENDMENTS

2005—Pub. L. 109-58 inserted section catchline.

## TRANSFER OF FUNCTIONS

“Secretary of Energy” substituted for “Federal Power Commission” in subsec. (b) pursuant to sections 301(b), 703, and 707 of Pub. L. 95-91, which are classified to sections 7151(b), 7293, and 7297 of Title 42, The Public Health and Welfare, and which terminated Federal

Power Commission and transferred its functions (with certain exceptions) to Secretary of Energy.

#### § 1015. Requirement for lessees

Leases under this chapter may be issued only to citizens of the United States, associations of such citizens, corporations organized under the laws of the United States or of any State or the District of Columbia, or governmental units, including, without limitation, municipalities.

(Pub. L. 91-581, §16, Dec. 24, 1970, 84 Stat. 1571; Pub. L. 109-58, title II, §236(16), Aug. 8, 2005, 119 Stat. 672.)

##### AMENDMENTS

2005—Pub. L. 109-58 inserted section catchline.

#### § 1016. Administration

Administration of this chapter shall be under the principles of multiple use of lands and resources, and geothermal leases shall, insofar as feasible, allow for coexistence of other leases of the same lands for deposits of minerals under the laws applicable to them, for the location and production of claims under the mining laws, and for other uses of the areas covered by them. Operations under such other leases or for such other uses, however, shall not unreasonably interfere with or endanger operations under any lease issued pursuant to this chapter, nor shall operations under leases so issued unreasonably interfere with or endanger operations under any lease, license, claim, or permit issued pursuant to the provisions of any other Act.

(Pub. L. 91-581, §17, Dec. 24, 1970, 84 Stat. 1571; Pub. L. 109-58, title II, §236(17), Aug. 8, 2005, 119 Stat. 672.)

##### AMENDMENTS

2005—Pub. L. 109-58 inserted section catchline.

#### § 1017. Unit and communitization agreements

##### (a) Adoption of units by lessees

###### (1) In general

For the purpose of more properly conserving the natural resources of any geothermal reservoir, field, or like area, or any part thereof (whether or not any part of the geothermal reservoir, field, or like area, is subject to any cooperative plan of development or operation (referred to in this section as a “unit agreement”)), lessees thereof and their representatives may unite with each other, or jointly or separately with others, in collectively adopting and operating under a unit agreement for the reservoir, field, or like area, or any part thereof, including direct use resources, if determined and certified by the Secretary to be necessary or advisable in the public interest.

###### (2) Majority interest of single leases

A majority interest of owners of any single lease shall have the authority to commit the lease to a unit agreement.

###### (3) Initiative of Secretary

The Secretary may also initiate the formation of a unit agreement, or require an existing Federal lease to commit to a unit agreement, if in the public interest.

##### (4) Modification of lease requirements by Secretary

###### (A) In general

The Secretary may, in the discretion of the Secretary and with the consent of the holders of leases involved, establish, alter, change, or revoke rates of operations (including drilling, operations, production, and other requirements) of the leases and make conditions with respect to the leases, with the consent of the lessees, in connection with the creation and operation of any such unit agreement as the Secretary may consider necessary or advisable to secure the protection of the public interest.

###### (B) Unlike terms or rates

Leases with unlike lease terms or royalty rates shall not be required to be modified to be in the same unit.

##### (b) Requirement of plans under new leases

The Secretary may—

(1) provide that geothermal leases issued under this chapter shall contain a provision requiring the lessee to operate under a unit agreement; and

(2) prescribe the unit agreement under which the lessee shall operate, which shall adequately protect the rights of all parties in interest, including the United States.

##### (c) Modification of rate of prospecting, development, and production

The Secretary may require that any unit agreement authorized by this section that applies to land owned by the United States contain a provision under which authority is vested in the Secretary, or any person, committee, or State or Federal officer or agency as may be designated in the unit agreement to alter or modify, from time to time, the rate of prospecting and development and the quantity and rate of production under the unit agreement.

##### (d) Exclusion from determination of holding or control

Any land that is subject to a unit agreement approved or prescribed by the Secretary under this section shall not be considered in determining holdings or control under section 1006 of this title.

##### (e) Pooling of certain land

If separate tracts of land cannot be independently developed and operated to use geothermal resources pursuant to any section of this chapter—

(1) the land, or a portion of the land, may be pooled with other land, whether or not owned by the United States, for purposes of development and operation under a communitization agreement providing for an apportionment of production or royalties among the separate tracts of land comprising the production unit, if the pooling is determined by the Secretary to be in the public interest; and

(2) operation or production pursuant to the communitization agreement shall be treated as operation or production with respect to each tract of land that is subject to the communitization agreement.

**(f) Unit agreement review****(1) In general**

Not later than 5 years after the date of approval of any unit agreement and at least every 5 years thereafter, the Secretary shall—

(A) review each unit agreement; and

(B) after notice and opportunity for comment, eliminate from inclusion in the unit agreement any land that the Secretary determines is not reasonably necessary for unit operations under the unit agreement.

**(2) Basis for elimination**

The elimination shall—

(A) be based on scientific evidence; and

(B) occur only if the elimination is determined by the Secretary to be for the purpose of conserving and properly managing the geothermal resource.

**(3) Extension**

Any land eliminated under this subsection shall be eligible for an extension under section 1005(g) of this title if the land meets the requirements for the extension.

**(g) Drilling or development contracts****(1) In general**

The Secretary may, on such conditions as the Secretary may prescribe, approve drilling or development contracts made by one or more lessees of geothermal leases, with one or more persons, associations, or corporations if, in the discretion of the Secretary, the conservation of natural resources or the public convenience or necessity may require or the interests of the United States may be best served by the approval.

**(2) Holdings or control**

Each lease operated under an approved drilling or development contract, and interest under the contract, shall be excepted in determining holdings or control under section 1006 of this title.

**(h) Coordination with State governments**

The Secretary shall coordinate unitization and pooling activities with appropriate State agencies.

(Pub. L. 91-581, §18, Dec. 24, 1970, 84 Stat. 1571; Pub. L. 100-443, §4, Sept. 22, 1988, 102 Stat. 1768; Pub. L. 109-58, title II, §227, Aug. 8, 2005, 119 Stat. 666.)

## AMENDMENTS

2005—Pub. L. 109-58 inserted section catchline and amended text generally. Prior to amendment, text related to cooperative or unit plan of development or operation of geothermal pool, field, or like area, public interest, determination and certification, regulations, protection of parties in interest, authority respecting rate of prospecting, development, and production, five year review, and leases excepted from control for purposes of State acreage limitation.

1988—Pub. L. 100-443, §4, inserted provisions relating to five year review of plans and elimination of leases from plans.

**§ 1018. Data from Federal agencies**

Upon request of the Secretary, other Federal departments and agencies shall furnish him with

any relevant data then in their possession or knowledge concerning or having bearing upon fair and adequate charges to be made for geothermal steam produced or to be produced for conversion to electric power or other purposes. Data given to any department or agency as confidential under law shall not be furnished in any fashion which identifies or tends to identify the business entity whose activities are the subject of such data or the person or persons who furnished such information.

(Pub. L. 91-581, §19, Dec. 24, 1970, 84 Stat. 1572; Pub. L. 109-58, title II, §236(18), Aug. 8, 2005, 119 Stat. 673.)

## AMENDMENTS

2005—Pub. L. 109-58 inserted section catchline.

**§ 1019. Disposal of moneys from sales, bonuses, rentals, and royalties****(a) In general**

Except with respect to lands in the State of Alaska, all monies received by the United States from sales, bonuses, rentals, and royalties under this chapter shall be paid into the Treasury of the United States. Of amounts deposited under this subsection, subject to the provisions of subsection (b) of section 191 of this title and section 1004(a)(2) of this title—

(1) 50 percent shall be paid to the State within the boundaries of which the leased lands or geothermal resources are or were located; and

(2) 25 percent shall be paid to the county within the boundaries of which the leased lands or geothermal resources are or were located.

**(b) Use of payments**

Amounts paid to a State or county under subsection (a) of this section shall be used consistent with the terms of section 191 of this title.

(Pub. L. 91-581, §20, Dec. 24, 1970, 84 Stat. 1572; Pub. L. 100-443, §5(a), Sept. 22, 1988, 102 Stat. 1768; Pub. L. 103-66, title X, §10202(b), Aug. 10, 1993, 107 Stat. 408; Pub. L. 109-58, title II, §224(b), Aug. 8, 2005, 119 Stat. 663.)

## AMENDMENTS

2005—Pub. L. 109-58 inserted section catchline and amended text generally. Prior to amendment, text read as follows: "Subject to the provisions of section 191(b) of this title, all moneys received from the sales, bonuses, royalties and rentals under the provisions of this chapter, including the payments referred to in section 1005(i) of this title, shall be disposed of in the same manner as such moneys received pursuant to section 191 of this title or pursuant to section 355 of this title, as the case may be."

1993—Pub. L. 103-66 substituted "Subject to the provisions of section 191(b) of this title, all moneys" for "All moneys".

1988—Pub. L. 100-443 amended section generally. Prior to amendment, section read as follows: "All moneys received under this chapter from public lands under the jurisdiction of the Secretary shall be disposed of in the same manner as moneys received from the sale of public lands. Moneys received under this chapter from other lands shall be disposed of in the same manner as other receipts from such lands."

**§ 1020. Publication in Federal Register; reservation of mineral rights**

Geothermal resources in lands the surface of which has passed from Federal ownership but in

which the minerals have been reserved to the United States shall not be developed or produced except under geothermal leases made pursuant to this chapter. If the Secretary of the Interior finds that such development is imminent, or that production from a well heretofore drilled on such lands is imminent, he shall so report to the Attorney General, and the Attorney General is authorized and directed to institute an appropriate proceeding in the United States district court of the district in which such lands are located, to quiet the title of the United States in such resources, and if the court determines that the reservation of minerals to the United States in the lands involved included the geothermal resources, to enjoin their production otherwise than under the terms of this chapter: *Provided*, That upon an authoritative judicial determination that Federal mineral reservation does not include geothermal resources the duties of the Secretary of the Interior to report and of the Attorney General to institute proceedings, as hereinbefore set forth, shall cease.

(Pub. L. 91-581, §21, Dec. 24, 1970, 84 Stat. 1572; Pub. L. 109-58, title II, §236(1), (3), (19), Aug. 8, 2005, 119 Stat. 671, 673.)

#### AMENDMENTS

2005—Pub. L. 109-58 inserted section catchline, struck out “(b)” before “Geothermal”, substituted “does not include geothermal resources” for “does not include geothermal steam and associated geothermal resources”, and struck out subsec. (a) which read as follows: “Within one hundred and twenty days after December 24, 1970, the Secretary shall cause to be published in the Federal Register a determination of all lands which were included within any known geothermal resources area on December 24, 1970. He shall likewise publish in the Federal Register from time to time his determination of other known geothermal resources areas specifying in each case the date the lands were included in such area; and”.

#### § 1021. Federal exemption from State water laws

Nothing in this chapter shall constitute an express or implied claim or denial on the part of the Federal Government as to its exemption from State water laws.

(Pub. L. 91-581, §22, Dec. 24, 1970, 84 Stat. 1573; Pub. L. 109-58, title II, §236(20), Aug. 8, 2005, 119 Stat. 673.)

#### AMENDMENTS

2005—Pub. L. 109-58 inserted section catchline.

#### § 1022. Prevention of waste; exclusivity

(a) All leases under this chapter shall be subject to the condition that the lessee will, in conducting his exploration, development, and producing operations, use all reasonable precautions to prevent waste of geothermal resources developed in the lands leased.

(b) Rights to develop and utilize geothermal resources underlying lands owned by the United States may be acquired solely in accordance with the provisions of this chapter.

(Pub. L. 91-581, §23, Dec. 24, 1970, 84 Stat. 1573; Pub. L. 109-58, title II, §236(1), (21), Aug. 8, 2005, 119 Stat. 671, 673.)

#### AMENDMENTS

2005—Pub. L. 109-58 inserted section catchline and substituted “geothermal resources” for “geothermal

steam and associated geothermal resources” in subsecs. (a) and (b).

#### § 1023. Rules and regulations

The Secretary shall prescribe such rules and regulations as he may deem appropriate to carry out the provisions of this chapter. Such regulations may include, without limitation, provisions for (a) the prevention of waste, (b) development and conservation of geothermal and other natural resources, (c) the protection of the public interest, (d) assignment, segregation, extension of terms, relinquishment of leases, development contracts, unitization, pooling, and drilling agreements, (e) compensatory royalty agreements, suspension of operations or production, and suspension or reduction of rentals or royalties, (f) the filing of surety bonds to assure compliance with the terms of the lease and to protect surface use and resources, (g) use of the surface by a lessee of the lands embraced in his lease, (h) the maintenance by the lessee of an active development program, and (i) protection of water quality and other environmental qualities.

(Pub. L. 91-581, §24, Dec. 24, 1970, 84 Stat. 1573; Pub. L. 109-58, title II, §236(22), Aug. 8, 2005, 119 Stat. 673.)

#### AMENDMENTS

2005—Pub. L. 109-58 inserted section catchline.

#### TRANSFER OF FUNCTIONS

Functions of Secretary of the Interior to promulgate regulations under this chapter relating to fostering of competition for Federal leases, implementation of alternative bidding systems authorized for award of Federal leases, establishment of diligence requirements for operations conducted on Federal leases, setting of rates for production of Federal leases, and specifying of procedures, terms, and conditions for acquisition and disposition of Federal royalty interests taken in kind, transferred to Secretary of Energy by section 7152(b) of Title 42, The Public Health and Welfare. Section 7152(b) of Title 42 was repealed by Pub. L. 97-100, title II, §201, Dec. 23, 1981, 95 Stat. 1407, and functions of Secretary of Energy returned to Secretary of the Interior. See House Report No. 97-315, pp. 25, 26, Nov. 5, 1981.

#### § 1024. Inclusion of geothermal leasing under certain other laws

As to any land subject to geothermal leasing under section 1002 of this title, all laws which either (a) provide for the disposal of land by patent or other form of conveyance or by grant or by operation of law subject to a reservation of any mineral or (b) prevent or restrict the disposal of such land because of the mineral character of the land, shall hereafter be deemed to embrace geothermal resources as a substance which either must be reserved or must prevent or restrict the disposal of such land, as the case may be. This section shall not be construed to affect grants, patents, or other forms of conveyances made prior to December 24, 1970.

(Pub. L. 91-581, §25, Dec. 24, 1970, 84 Stat. 1573; Pub. L. 109-58, title II, §236(1), (23), Aug. 8, 2005, 119 Stat. 671, 673.)

#### AMENDMENTS

2005—Pub. L. 109-58 inserted section catchline and substituted “geothermal resources” for “geothermal steam and associated geothermal resources” in text.

**§ 1025. Federal reservation of certain mineral rights**

The United States reserves the ownership of and the right to extract under such rules and regulations as the Secretary may prescribe oil, hydrocarbon gas, and helium from all geothermal resources produced from lands leased under this chapter in accordance with presently applicable laws: *Provided*, That whenever the right to extract oil, hydrocarbon gas, and helium from geothermal resources produced from such lands is exercised pursuant to this section, it shall be exercised so as to cause no substantial interference with the production of geothermal resources from such lands.

(Pub. L. 91-581, §27, Dec. 24, 1970, 84 Stat. 1574; Pub. L. 109-58, title II, §236(1), (25), Aug. 8, 2005, 119 Stat. 671, 673.)

AMENDMENTS

2005—Pub. L. 109-58 inserted section catchline and substituted “geothermal resources” for “geothermal steam and associated geothermal resources” wherever appearing in text.

**§ 1026. Significant thermal features**

**(a) Units of National Park System**

(1) The Secretary shall maintain a list of significant thermal features, as defined in section 1001(f) of this title, within units of the National Park System, including but not limited to the following units:

- (A) Mount Rainier National Park.
- (B) Crater Lake National Park.
- (C) Yellowstone National Park.
- (D) John D. Rockefeller, Jr. Memorial Parkway.
- (E) Bering Land Bridge National Preserve.
- (F) Gates of the Arctic National Park and Preserve.
- (G) Katmai National Park.
- (H) Aniakchak National Monument and Preserve.
- (I) Wrangell-St. Elias National Park and Preserve.
- (J) Lake Clark National Park and Preserve.
- (K) Hot Springs National Park.
- (L) Big Bend National Park (including that portion of the Rio Grande National Wild Scenic River within the boundaries of Big Bend National Park).
- (M) Lassen Volcanic National Park.
- (N) Hawai'i Volcanoes National Park.
- (O) Haleakalā National Park.
- (P) Lake Mead National Recreation Area.

(2) The Secretary may, after notice and public comment, add significant thermal features within units of the National Park System to the significant thermal features list.

(3) The Secretary shall consider the following criteria in determining the significance of thermal features:

- (A) Size, extent and uniqueness.
- (B) Scientific and geologic significance.
- (C) The extent to which such features remain in a natural, undisturbed condition.
- (D) Significance of thermal features to the authorized purposes for which the National Park System unit was established.

**(b) Monitoring program**

(1) The Secretary shall maintain a monitoring program for significant thermal features within units of the National Park System.

(2) As part of the monitoring program required by paragraph (1), the Secretary shall establish a research program to collect and assess data on the geothermal resources within units of the National Park System with significant thermal features. Such program shall be carried out by the National Park Service in cooperation with the U.S. Geological Survey and shall begin with the collection and assessment of data for significant thermal features near current or proposed geothermal development and shall also include such features near areas of potential geothermal development.

**(c) Lease application; adverse effect**

(1) Upon receipt of an application for a lease under this chapter, the Secretary shall determine on the basis of scientific evidence if exploration, development or utilization of the lands subject to the lease application is reasonably likely to result in a significant adverse effect on a significant thermal feature within a unit of the National Park System. Such determination shall be subject to notice and public comment.

(2) If the Secretary determines that the exploration, development or utilization of the land subject to the lease application is reasonably likely to result in a significant adverse effect on a significant thermal feature within a unit of the National Park System, the Secretary shall not issue such lease.

(3) The Secretary shall not issue any lease under this chapter for those lands, or portions thereof, which are the subject of a determination made pursuant to subparagraph (2).

**(d) Lease stipulations**

With respect to all leases or drilling permits issued, extended, renewed or modified under this chapter, the Secretary shall include stipulations in such leases and permits necessary to protect significant thermal features within units of the National Park System where the Secretary determines that, based on scientific evidence, the exploration, development or utilization of the land subject to the lease or drilling permit is reasonably likely to adversely affect any such significant thermal feature. Stipulations shall include, but not be limited to—

(1) requiring the lessee to reinject geothermal fluids into the rock formations from which they originate;

(2) requiring the lessee to report annually to the Secretary on activities taken on the lease;

(3) requiring the lessee to continuously monitor geothermal resources production and injection wells; and

(4) requiring the lessee to suspend activity on the lease if the Secretary determines that ongoing exploration, development or utilization activities are having a significant adverse effect on a significant thermal feature within a unit of the National Park System until such time as the significant adverse effect is eliminated. The stipulation shall provide for the termination of the lease by the Secretary if the significant adverse effect cannot be eliminated within a reasonable period of time.

**(e) Lands administered by Department of Agriculture**

The Secretary of Agriculture shall consider the effects on significant thermal features within units of the National Park System in determining whether to consent to leasing under this chapter on national forest lands or other lands administered by the Department of Agriculture available for leasing under this chapter, including public, withdrawn, and acquired lands.

**(f) Prohibition**

Nothing in this chapter shall affect the ban on leasing under this chapter with respect to the Island Park Geothermal Area, as designated by the map in the "Final Environmental Impact Statement of the Island Park Geothermal Area" (January 15, 1980, p. XI), and provided for in Public Law 98-473.

(Pub. L. 91-581, § 28, as added Pub. L. 100-443, § 6, Sept. 22, 1988, 102 Stat. 1769; amended Pub. L. 106-510, § 3(a)(2), (b)(2), Nov. 13, 2000, 114 Stat. 2363; Pub. L. 109-58, title II, § 236(1), (26), Aug. 8, 2005, 119 Stat. 671, 673.)

## REFERENCES IN TEXT

Public Law 98-473, referred to in subsec. (f), is Pub. L. 98-473, Oct. 12, 1984, 98 Stat. 1837, as amended. For complete classification of this Act to the Code, see Tables.

## AMENDMENTS

2005—Pub. L. 109-58, § 236(26), inserted section catchline.

Subsec. (d)(3). Pub. L. 109-58, § 236(1), substituted "geothermal resources" for "geothermal steam and associated geothermal resources".

2000—Subsec. (a)(1)(N). Pub. L. 106-510, § 3(a)(2), substituted "Hawai'i Volcanoes National Park" for "Hawaii Volcanoes National Park".

Subsec. (a)(1)(O). Pub. L. 106-510, § 3(b)(2), substituted "Haleakalā National Park" for "Haleakala National Park".

## CORWIN SPRINGS KNOWN GEOTHERMAL RESOURCE AREA STUDY

Pub. L. 100-443, § 8, Sept. 22, 1988, 102 Stat. 1771, provided that:

"(a) The United States Geological Survey, in consultation with the National Park Service, shall conduct a study on the impact of present and potential geothermal development in the vicinity of Yellowstone National Park on the thermal features within the park. The area to be studied shall be the lands within the Corwin Springs Known Geothermal Resource Area as designated in the July 22, 1975, Federal Register (Fed. Reg. Vol. 40, No. 141). The study shall be transmitted to Congress no later than December 1, 1990.

"(b) Any production from existing geothermal wells or any development of new geothermal wells or other facilities related to geothermal production is prohibited in the Corwin Springs Known Geothermal Resource Area until 180 days after the receipt by Congress of the study provided for in subsection (a) of this section.

"(c) The Secretary may not issue, extend, renew or modify any geothermal lease or drilling permit pursuant to the Geothermal Steam Act of 1970 (30 U.S.C. 1001-1025) in the Corwin Springs Known Geothermal Resource Area until 180 days after the receipt by Congress of the study provided for in section 8(a) of this Act. This section shall not be construed as requiring such leasing activities subsequent to the 180 days after study submittal.

"(d) If the Secretary determines that geothermal drilling and related activities within the area studied pursuant to subsection (a) of this section may ad-

versely affect the thermal features of Yellowstone National Park, the Secretary shall include in the study required under subsection (a) of this section recommendations regarding the acquisition of the geothermal rights necessary to protect such thermal resources and features."

**§ 1027. Land subject to prohibition on leasing**

The Secretary shall not issue any lease under this chapter on those lands subject to the prohibition provided under section 226-3 of this title.

(Pub. L. 91-581, § 29, as added Pub. L. 100-443, § 5(d), Sept. 22, 1988, 102 Stat. 1769; amended Pub. L. 109-58, title II, § 236(27), Aug. 8, 2005, 119 Stat. 673.)

## AMENDMENTS

2005—Pub. L. 109-58 inserted section catchline.

**§ 1028. Hot dry rock geothermal energy****(a) USGS program**

The Secretary of the Interior, acting through the United States Geological Survey, and in consultation with the Secretary of Energy, shall establish a cooperative Government-private sector program with respect to hot dry rock geothermal energy resources on public lands (as such term is defined in section 1702(e) of title 43) and lands managed by the Department of Agriculture, other than any such public or other lands that are withdrawn from geothermal leasing. Such program shall include, but shall not be limited to, activities to identify, select, and classify those areas throughout the United States that have a high potential for hot dry rock geothermal energy production and activities to develop and disseminate information regarding the utilization of such areas for hot dry rock energy production. Such information may include information regarding field test processes and techniques for assuring that hot dry rock geothermal energy development projects are developed in an economically feasible manner without adverse environmental consequences. Utilizing the information developed by the Secretary, together with information developed in connection with other related programs carried out by other Federal agencies, the Secretary, acting through the United States Geological Survey, may also enter into contracts and cooperative agreements with any public or private entity to provide assistance to any such entity to enable such entity to carry out additional projects with respect to the utilization of hot dry rock geothermal energy resources which will further the purposes of this section.

**(b) Authorization of appropriations**

There are authorized to be appropriated such sums as may be necessary<sup>1</sup> to carry out this section.

(Pub. L. 102-486, title XXV, § 2501, Oct. 24, 1992, 106 Stat. 3101.)

## CODIFICATION

Section was enacted as part of the Energy Policy Act of 1992, and not as part of the Geothermal Steam Act of 1970 which comprises this chapter.

<sup>1</sup> So in original. Probably should be "necessary".

**CHAPTER 24—GEOTHERMAL ENERGY RESEARCH, DEVELOPMENT, AND DEMONSTRATION**

Sec.

1101. Congressional findings.  
1102. Definitions.

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**§ 1101. Congressional findings**

The Congress hereby finds that—

(1) the Nation is currently suffering a critical shortage of environmentally acceptable forms of energy;

(2) the inadequate organizational structures and levels of funding for energy research have limited the Nation's current and future options for meeting energy needs;

(3) electric energy is a clean and convenient form of energy at the location of its use and is the only practicable form of energy in some modern applications, but the demand for electric energy in every region of the United States is taxing all of the alternative energy sources presently available and is projected to increase; some of the sources available for electric power generation are already in short supply, and the development and use of other sources presently involve undesirable environmental impacts;

(4) the Nation's critical energy problems can be solved only if a national commitment is made to dedicate the necessary financial resources, and enlist the cooperation of the private and public sectors, in developing geothermal resources and other nonconventional sources of energy;

(5) the conventional geothermal resources which are presently being used have limited total potential; but geothermal resources which are different from those presently being used, and which have extremely large energy content, are known to exist;

(6) some geothermal resources contain energy in forms other than heat; examples are methane and extremely high pressures available upon release as kinetic energy;

(7) some geothermal resources contain valuable byproducts such as potable water and mineral compounds which should be processed and recovered as national resources;

(8) technologies are not presently available for the development of most of these geothermal resources, but technologies for the generation of electric energy from geothermal resources are potentially economical and environmentally desirable, and the development of geothermal resources offers possibilities of process energy and other nonelectric applications;

(9) much of the known geothermal resources exist on the public lands;

(10) Federal financial assistance is necessary to encourage the extensive exploration, research, and development in geothermal resources which will bring these technologies to the point of commercial application;

(11) the advancement of technology with the cooperation of private industry for the production of useful forms of energy from geothermal resources is important with respect to the Federal responsibility for the general welfare, to facilitate commerce, to encourage productive harmony between man and his environment, and to protect the public interest; and

(12) the Federal Government should encourage and assist private industry through Federal assistance for the development and demonstration of practicable means to produce useful energy from geothermal resources with environmentally acceptable processes.

(Pub. L. 93-410, §2, Sept. 3, 1974, 88 Stat. 1079.)

**SHORT TITLE**

Pub. L. 93-410, §1, Sept. 3, 1974, 88 Stat. 1079, provided that: "This Act [enacting this chapter] may be cited as the 'Geothermal Energy Research, Development, and Demonstration Act of 1974.'"

**§ 1102. Definitions**

For the purposes of this chapter—

(1) the term "geothermal resources" means (A) all products of geothermal processes, embracing indigenous steam, hot water, and brines, (B) steam and other gases, hot water and hot brines, resulting from water, gas, or other fluids artificially introduced into geothermal formations, and (C) any byproduct derived from them;

(2) the term "byproduct" means any mineral or minerals which are found in solution or in association with geothermal resources and which have a value of less than 75 percent of the value of the geothermal steam and associated geothermal resources or are not, because of quantity, quality, or technical difficulties in extraction and production, of sufficient value to warrant extraction and production by themselves;

(3) "pilot plant" means an experimental unit of small size used for early evaluation and development of new or improved processes and to obtain technical, engineering, and cost data;

(4) "demonstration plant" means a complete facility which produces electricity, heat energy, or useful byproducts for commercial disposal from geothermal resources and which