

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.)

Editorial Notes

AMENDMENTS

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

Statutory Notes and Related Subsidiaries

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 Section 7152(b) of Title 42 was repealed by Pub.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.)

Editorial Notes

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.)

Editorial Notes

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.)

Editorial Notes

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".

Statutory Notes and Related Subsidiaries

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 adversely 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.)

Editorial Notes

AMENDMENTS

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

§ 1028. Hot dry rock geothermal energy

(a) Definition of enhanced geothermal systems

In this section, the term “enhanced geothermal systems” has the meaning given the term in section 17191 of title 42.

(b) 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.

(c) Update to geothermal resource assessment

The Secretary of the Interior, acting through the United States Geological Survey, and in

consultation with the Secretary of Energy, shall update the 2008 United States geothermal resource assessment carried out by the United States Geological Survey, including—

(1) with respect to areas previously identified by the Department of Energy or the United States Geological Survey as having significant potential for hydrothermal energy or enhanced geothermal systems energy, by focusing on—

(A) improving the resolution of resource potential at systematic temperatures and depths, including temperatures and depths appropriate for power generation and direct use applications;

(B) quantifying the total potential to co-produce geothermal energy and minerals;

(C) incorporating data relevant to underground thermal energy storage and exchange, such as aquifer and soil properties; and

(D) producing high resolution maps, including—

(i) maps that indicate key subsurface parameters for electric and direct use resources; and

(ii) risk maps for induced seismicity based on geologic, geographic, and operational parameters; and

(2) to the maximum extent practicable, by coordinating with relevant State officials and institutions of higher education to expand geothermal assessments, including enhanced geothermal systems assessments, to include assessments for the Commonwealth of Puerto Rico and the States of Alaska and Hawaii.

(d) Authorization of appropriations

There are authorized to be appropriated such sums as may be necessary to carry out this section.

(Pub. L. 102-486, title XXV, §2501, Oct. 24, 1992, 106 Stat. 3101; Pub. L. 116-260, div. Z, title III, §3002(m), Dec. 27, 2020, 134 Stat. 2496.)

Editorial Notes

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.

AMENDMENTS

2020—Subsec. (a). Pub. L. 116-260, §3002(m)(2), added subsec. (a). Former subsec. (a) redesignated (b).

Subsec. (b). Pub. L. 116-260, §3002(m)(1), redesignated subsec. (a) as (b). Former subsec. (b) redesignated (d).

Subsec. (c). Pub. L. 116-260, §3002(m)(3), added subsec. (c).

Subsec. (d). Pub. L. 116-260, §3002(m)(1), (4), redesignated subsec. (b) as (d) and substituted “necessary” for “necessary”.

CHAPTER 24—GEOTHERMAL ENERGY RESEARCH, DEVELOPMENT, AND DEMONSTRATION

§§ 1101 to 1164. Repealed. Pub. L. 116-260, div. Z, title III, §3002(i)(3), Dec. 27, 2020, 134 Stat. 2495

Section 1101, Pub. L. 93-410, §2, Sept. 3, 1974, 88 Stat. 1079, related to Congressional findings.