

mine 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. 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.

Section 1102, Pub. L. 93-410, §3, Sept. 3, 1974, 88 Stat. 1080, related to definitions for purposes of this chapter.

Section 1121, Pub. L. 93-410, title I, §101, Sept. 3, 1974, 88 Stat. 1080; Pub. L. 95-238, title V, §502, Feb. 25, 1978, 92 Stat. 86, related to formation of project.

Section 1122, Pub. L. 93-410, title I, §102, Sept. 3, 1974, 88 Stat. 1081; Pub. L. 102-154, title I, Nov. 13, 1991, 105 Stat. 1000, related to program definition.

Section 1123, Pub. L. 93-410, title I, §103, Sept. 3, 1974, 88 Stat. 1082; Pub. L. 95-238, title V, §503, Feb. 25, 1978, 92 Stat. 86; Pub. L. 102-154, title I, Nov. 13, 1991, 105 Stat. 1000, related to resource inventory and assessment program.

Section 1124, Pub. L. 93-410, title I, §104, Sept. 3, 1974, 88 Stat. 1083, related to research and development.

Section 1125, Pub. L. 93-410, title I, §105, Sept. 3, 1974, 88 Stat. 1084; Pub. L. 95-238, title V, §504, Feb. 25, 1978, 92 Stat. 86, related to geothermal demonstration plants and projects.

Section 1126, Pub. L. 93-410, title I, §106, Sept. 3, 1974, 88 Stat. 1085, related to scientific and technical education.

Section 1141, Pub. L. 93-410, title II, §201, Sept. 3, 1974, 88 Stat. 1086; Pub. L. 95-91, title III, §301(a), title VII, §§703, 707, Aug. 4, 1977, 91 Stat. 577, 606, 607; Pub. L. 95-238, title V, §§505-509, Feb. 25, 1978, 92 Stat. 86, 87; Pub. L. 96-294, title VI, §641(1), June 30, 1980, 94 Stat. 768; Pub. L. 99-514, §2, Oct. 22, 1986, 100 Stat. 2095; Pub. L. 103-437, §11(b), Nov. 2, 1994, 108 Stat. 4589, related to establishment of loan guaranty program.