

Introduced: 2/18/80
Referred: Resources

BY THE RULES COMMITTEE BY REQUEST
OF THE LEGISLATIVE COUNCIL (for the
Joint Committee on Small
Hydroelectric and Geothermal Power)

1 IN THE HOUSE

2 HOUSE BILL NO. 779

3 IN THE LEGISLATURE OF THE STATE OF ALASKA

4 ELEVENTH LEGISLATURE - SECOND SESSION

5 A BILL

6 For an Act entitled: "An Act relating to the development of geothermal re-
7 sources."

8 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

9 * Section 1. DECLARATION OF POLICY. It is declared to be in the public
10 interest to foster and promote the discovery, development, production, pri-
11 mary and cascaded use, and disposal of geothermal resources in the state in a
12 manner that will prevent waste, provide for maximum economic recovery, pro-
13 tect correlative rights, and safeguard the natural environment and the public
14 welfare.

15 * Sec. 2. AS 38.05.125 is amended to read:

16 Sec. 38.05.125. RESERVATION. Each contract for the sale, lease or
17 grant of state land, and each deed to state land, properties or interest
18 in state land, made under AS 38.05.315 - 38.05.325, 38.05.045 - 38.05.-
19 120, AS 38.08, or AS 38.50 except as provided in AS 38.50.050 is subject
20 to the following reservations: "The party of the first part, Alaska,
21 hereby expressly saves, excepts and reserves out of the grant hereby
22 made, unto itself, its lessees, successors, and assigns forever, all
23 oils, gases, coal, ores, minerals, fissionable materials, geothermal
24 resources, and fossils of every name, kind or description, and which may
25 be in or upon said lands above described, or any part thereof, and the
26 right to explore the same for such oils, gases, coal, ores, minerals,
27 fissionable materials, geothermal resources, and fossils, and it also
28 hereby expressly saves and reserves out of the grant hereby made, unto
29 itself, its lessees, successors, and assigns forever, the right to enter

1 may enter upon the land in the exercise of the reserved rights after
2 posting a surety bond determined by the director, after notice and an
3 opportunity to be heard, to be sufficient as to form, amount, and secur-
4 ity to secure to the owner payment for damages, and may institute legal
5 proceedings in a court where the land is located, as may be necessary to
6 determine the damages which the owner may suffer.

7 * Sec. 4. AS 38.05.181 is repealed and re-enacted to read:

8 Sec. 38.05.181. GEOTHERMAL RESOURCES. (a) Permits and leases;
9 preference. The commissioner may, under regulations he adopts, grant
10 prospecting permits and leases to a qualified person to explore for,
11 develop, or use geothermal resources. When title to the surface parcel
12 is held by a person other than the state, that person shall have a pre-
13 ferential right to a geothermal prospecting permit or lease for the area
14 underlying the surface parcel. The surface owner must exercise the
15 preference right within 30 days after receiving notice of the applica-
16 tion for a permit, or by agreeing to meet the terms of a bid within 60
17 days after receiving notice of the acceptance of the bid for a lease.

18 (b) Competitive geothermal areas. The commissioner may designate
19 a geothermal area or portion of it a competitive geothermal area. A
20 designation as a competitive geothermal area must be on the basis of
21 substantial geologic indications of geothermal resources or on the basis
22 of competitive interest in geothermal resources of the area.

23 (c) Prospecting permits. On state land that has not been declared
24 a competitive geothermal area or withdrawn from geothermal prospecting,
25 the commissioner may issue a prospecting permit to the first qualified
26 applicant. The permit conveys an exclusive right, for a period of two
27 years, to prospect for geothermal resources on state land included under
28 the permit. The commissioner may, at his discretion, renew the permit
29 for an additional one-year term. A holder of a prospecting permit has

1 the right, upon the showing of a discovery of geothermal resources in
2 commercial quantities and the submission of a development plan accept-
3 able to the commissioner, to convert the permit to a noncompetitive
4 lease at a rent, under (e) of this section, and royalty rate, under (g)
5 of this section, set at the time the permit was issued. The conversion
6 privilege must be exercised not later than 30 days after the expiration
7 of the permit. If the land included within the permit is designated a
8 competitive geothermal area during the permit term, the permittee must
9 apply for a noncompetitive lease within 30 days after notification of
10 the designation or forfeit his conversion privileges and his exclusive
11 right to prospect.

12 (d) Competitive leasing. On state land that is designated a
13 competitive geothermal area and is not subject to an existing prospect-
14 ing permit, the commissioner may issue geothermal leases to the highest
15 bidder by competitive bidding procedures established by regulations
16 adopted by him. At the discretion of the commissioner, competitive
17 lease sales may be by oral or sealed bid, on the basis of a cash bonus,
18 profit share, or royalty share.

19 (e) Acreage limitations and rentals. Prospecting permits and
20 geothermal leases granted under this section must, except in the case of
21 parcels subject to a preference right under (b) of this section, be
22 issued for at least 40 acres but not more than 2,560 acres. A person
23 may not own, or hold an interest in, geothermal leases covering more
24 than 51,200 acres. However, geothermal leases actually in commercial
25 production do not count against the acreage limitation. All prospecting
26 permits and geothermal leases are subject to an annual rental, payable
27 in advance, of at least \$3 per acre. The rental for a year shall be
28 credited against royalties accruing for that year.

29 (f) Lease term and renegotiation. A geothermal lease shall be

1 issued for a primary term of 10 years and may be renewed for an addi-
2 tional term of five years if the lessee is actively engaged in drilling
3 operations. A geothermal lease is valid for the duration of commercial
4 production. Beginning 20 years after the initiation of commercial
5 production and at 10-year intervals thereafter, the commissioner may
6 renegotiate the rentals and royalties due on a geothermal lease.

7 (g) Royalties. Each geothermal lease shall be conditioned upon
8 payment by the lessee of a royalty of not less than 10 percent but not
9 more than 15 percent of the gross revenues derived from the production,
10 sale, or use of geothermal resources under the lease. Royalties may be
11 taken in kind rather than in value if the commissioner determines that
12 taking in kind would be in the best interest of the state. The com-
13 missioner may also, if the lessee shows that he cannot otherwise
14 economically operate, reduce, suspend, or waive the rentals and royal-
15 ties due on a geothermal lease.

16 (h) Regulations. Regulations adopted by the commissioner to
17 implement this section shall be adopted in accordance with the Adminis-
18 trative Procedure Act (AS 44.62).

19 * Sec. 5. AS 38.05.365 is amended by adding a new paragraph to read:

20 (24) "geothermal resources" means the natural heat of the
21 earth at temperatures greater than 120 degrees Celsius, measured at the
22 point where the highest-temperature resources encountered enter or
23 contact a well shaft or other resource extraction device, and includes

24 (A) the energy, including pressure, in whatever form
25 present in, resulting from, created by, or that may be extracted
26 from that natural heat;

27 (B) the material medium, including the brines, water and
28 steam naturally present, as well as the fluids or substances arti-
29 ficially introduced to serve as a heat transfer medium; and

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(C) all dissolved or entrained minerals and gases that may be obtained from the material medium, but excluding hydrocarbon substances and helium.

* Sec. 6. AS 41 is amended by adding a new chapter to read:

CHAPTER 06. GEOTHERMAL RESOURCES.

Sec. 41.06.010. WASTE PROHIBITED. The waste of geothermal resources in the state is prohibited.

Sec. 41.06.020. APPLICATION. (a) The commissioner has jurisdiction over all persons and property, public and private, necessary to carry out the purposes and intent of this chapter.

(b) The authority of the commissioner applies to all private, municipal, state, and federal land in the state lawfully subject to the police power of the state. When any of that land is committed to a unit agreement involving land subject to federal jurisdiction, the operation of this chapter or a part of this chapter may be suspended, if the unit operations are regulated by the United State and if the conservation of geothermal resources is accomplished under the unit agreement.

Sec. 41.06.030. RESERVOIR MANAGEMENT. (a) The commissioner shall require the filing and approval of a plan of development and operation on each producing geothermal system and may issue well-spacing and pooling orders, limits on production, and reinjection requirements, in order to prevent waste, promote maximum economic recovery, and protect correlative rights.

(b) Lessees of all or part of a geothermal system may enter into a unit agreement for cooperative development, with the approval of the commissioner. The commissioner may suspend or modify the approved development plan in accordance with the unit agreement.

(c) If the owners of at least two-thirds of the leasehold in-

1 terests in a geothermal system ratify a unit agreement approved by the
2 commissioner, the commissioner may enforce the agreement as to lessees
3 not a party to the agreement by allocating production under the prin-
4 ciple of correlative rights and by apportioning costs and revenues.

5 (d) Lease operations under an approved development plan or unit
6 agreement are considered to be in compliance with individual lease
7 requirements.

8 Sec. 41.06.040. DRILLING REGULATIONS. (a) The commissioner shall
9 adopt regulations in accordance with the Administrative Procedure Act
10 (AS 44.62) relating to the siting, spacing, drilling, casing, cementing,
11 testing, logging, operating, producing, and abandonment of geothermal
12 wells so as to prevent

13 (1) geothermal resources, water or other fluids, and gases
14 from escaping into strata other than that in which they are found (un-
15 less in accordance with an approved reinjection program);

16 (2) contamination of surface and groundwater;

17 (3) premature cooling of a geothermal system by water en-
18 croachment or otherwise;

19 (4) blowouts, cavings and seepage; and

20 (5) unreasonable disturbance or injury to neighboring proper-
21 ties, prior water rights, human life, health and the natural environ-
22 ment.

23 (b) The commissioner shall cause the operator of a geothermal well
24 or wells to file adequate individual or blanket surety bonds to ensure
25 compliance with his regulations.

26 (c) The commissioner may enter upon any property, public or pri-
27 vate, to inspect a geothermal operation for compliance with his regu-
28 lations.

29 (d) Geothermal wells regulated by the commissioner under this

1 chapter are exempt from the jurisdiction of the Alaska Oil and Gas
2 Conservation Commission under AS 31.05.030(g).

3 Sec. 41.06.050. RELATIONSHIP OF GEOTHERMAL RESOURCES TO WATER.

4 (a) An operator shall, before drilling or constructing a geothermal
5 well or group of wells to be operated in concert, file an application
6 with the commissioner for a permit to drill the well or wells. The date
7 of filing of the application establishes priority as to later appro-
8 priators of nongeothermal fluids. The application must contain suffi-
9 cient information to enable the commissioner to determine whether the
10 operation of the well or wells will interfere with or impair an existing
11 water right.

12 (b) An operator may not begin well drilling or construction with-
13 out the approval of the commissioner. The commissioner shall approve
14 the well construction upon the conditions he considers necessary to
15 protect the public interest, if

16 (1) the proposed geothermal operation will not significantly
17 interfere with or substantially impair an existing water right;

18 (2) the geothermal owner has acquired through purchase or
19 condemnation adequate water rights to offset the potential interference
20 or impairment; or

21 (3) the geothermal owner has obtained and dedicated to the
22 affected party or parties an equivalent amount of replacement water of
23 comparable quality.

24 (c) The withdrawal of geothermal fluid from a geothermal system
25 does not require a certificate of appropriation under AS 46.15 and no
26 priority may be established among geothermal owners in a geothermal
27 system.

28 Sec. 41.06.060. DEFINITIONS. In this chapter

29 (1) "commissioner" means the commissioner of natural re-

1 sources;

2 (2) "correlative rights" means the right of each geothermal
3 owner in a geothermal system to produce without waste his just and
4 equitable share of the geothermal resources in the geothermal system;

5 (3) "geothermal fluid" means brines, water and steam at
6 temperatures greater than 120 degrees Celsius naturally present in a
7 geothermal system;

8 (4) "geothermal system" means a stratum, pool, reservoir, or
9 other geologic formation containing geothermal resources;

10 (5) "operator" means a person drilling, maintaining, operat-
11 ing, producing, or in control of a well;

12 (6) "owner" means a person who, by reason of an interest in
13 real property, has the right to drill into, produce, and make use of
14 geothermal resources;

15 (7) "waste" means an inefficient, excessive, or improper
16 production, use, or dissipation of geothermal resources, including, but
17 not limited to,

18 (A) drilling, transporting, or storage methods that
19 cause or tend to cause unnecessary surface loss of geothermal
20 resources;

21 (B) locating, spacing, drilling, equipping, operating,
22 producing, or venting of a well in a manner that results or tends
23 to result in reducing the ultimate economic recovery of geothermal
24 resources;

25 (8) "well" means a well drilled, converted, or reactivated
26 for the discovery, testing, production, or subsurface injection of
27 geothermal resources.

28 * Sec. 7. AS 41.08.020(a) is amended to read:
29 (a) The state geologist shall conduct geological and geophysical

1 surveys to determine the potential of Alaskan lands for production of
2 metals, minerals, [AND] fuels, and geothermal resources; the locations
3 and supplies of ground waters and construction materials; the potential
4 geologic hazards to buildings, roads, bridges and other installations
5 and structures; and shall conduct such other surveys and investigations
6 as will advance knowledge of the geology of Alaska. With the approval
7 of the commissioner, the state geologist may acquire, by gift or pur-
8 chase, geological and geophysical reports, surveys and similar informa-
9 tion.

10 * Sec. 8. AS 46.15.120 is amended to read:

11 Sec. 46.15.120. CERTIFICATES. Upon completion of construction of
12 the works and commencement of use of water, the permit holder shall
13 notify the commissioner that he has perfected his appropriation. If the
14 commissioner determines that the appropriation has been perfected in
15 substantial accordance with the permit, he shall issue the permit holder
16 a certificate of appropriation. The certificate shall set out such
17 information as the commissioner may prescribe by regulation. The certi-
18 ificate shall contain conditions that are necessary to protect the cor-
19 relative rights of the owners of geothermal systems under AS 41.06.

20 * Sec. 9. AS 46.15.260(5) is amended to read:

21 (5) "water" means all water of the state, surface and sub-
22 surfaces, occurring in a natural state, except [MINERAL AND MEDICINAL]
23 water of a hot spring or spring with curative properties that is re-
24 served by the federal government under Public Land Order No. 399, dated
25 August 20, 1947, and geothermal fluid as defined in AS 41.06.060(3);
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