

MINUTE ITEM

4/23/70  
CPP

28. ADOPTION OF RULES AND REGULATIONS FOR GEOTHERMAL RESOURCES - W-7365.

After consideration of Calendar Item 24 attached, and upon motion duly made and carried, the following resolution was adopted:

THE COMMISSION ADOPTS THE RULES AND REGULATIONS FOR GEOTHERMAL RESOURCES AS PROPOSED IN EXHIBIT "A", ATTACHED AND BY REFERENCE MADE A PART HEREOF, AND AUTHORIZES THE EXECUTIVE OFFICER TO TAKE THE REQUISITE ACTION FOR EFFECTUATION.

Attachment:

Calendar Item 24 (9 pages)

24.

## ADOPTION OF RULES AND REGULATIONS FOR GEOTHERMAL RESOURCES - W-7365.

The Geothermal Resources Act of 1967 provides for the development of geothermal resources on State lands under such rules and regulations as the Commission may prescribe. A draft of rules and regulations, prepared by the Division in cooperation with representatives of the geothermal industry, was presented to the Commission on May 5, 1969. The Commission authorized the Executive Officer to initiate procedures under the provisions of Sections 11420, et seq., Government Code, for adoption of rules and regulations for geothermal resources.

The proposed rules and regulations were published and submitted to interested parties for consideration. Comments on the proposed rules and regulations were received and reviewed by the Division and by the Office of the Attorney General and, where deemed to be appropriate, were incorporated into the proposed rules and regulations. This revision of the proposed rules and regulations was resubmitted to those parties that had made comments for consideration. Additional comments that were made were reviewed and were again incorporated when deemed appropriate.

The proposed rules and regulations for geothermal resources as revised are incorporated herein as Exhibit "A", and the Division recommends adoption by the Commission.

IT IS RECOMMENDED THAT THE COMMISSION ADOPT THE RULES AND REGULATIONS FOR GEOTHERMAL RESOURCES AS PROPOSED IN EXHIBIT "A", ATTACHED AND BY REFERENCE MADE A PART HEREOF, AND AUTHORIZE THE EXECUTIVE OFFICER TO TAKE THE REQUISITE ACTION FOR EFFECTUATION.

Attachment: Exhibit "A"

EXHIBIT "A"

ARTICLE 4.1

LEASES AND PROSPECTING PERMITS FOR GEOTHERMAL RESOURCES

The rules and regulations in this Article pertain to geothermal operations on state land under the jurisdiction of the State Lands Commission. These operations must be conducted in conformance with all applicable provisions of law, including but not limited to the following:

A. The drilling, operation, maintenance and abandonment of wells must comply with Chapter 4, Division 3 of the Public Resources Code and are under the supervision of the Division of Oil and Gas.

B. Proposed waste discharge reports must be filed with the Regional Water Quality Control Board and operations must comply with waste discharge requirements set by the Regional Water Quality Control Board as provided by Chapter 4, Division 7 of the Water Code.

C. Operations must comply with applicable provisions of law under jurisdiction of the Department of Parks and Recreation, the Department of Fish and Game, and the Division of Forestry, together with their applicable rules and regulations.

2250. CHARACTER AND EXTENT OF LANDS.

(a) Lands subject to lease are those within a known geothermal resources area.

(b) For tide and submerged lands and those underlying navigable streams and lakes, permits or leases may be issued for not less than 640 acres nor more than 5,760 acres. For all other lands the application shall be for a reasonably compact area not less than 640 acres nor more than 2,560 acres. A permit or lease may be issued for a parcel less than 640 acres if such parcel is isolated from or not contiguous with other parcels of state land available for permit or lease. No lease will be granted to any applicant where the issuance of such lease will cause such applicant to have any direct or indirect interests in state geothermal leases exceeding 25,600 acres.

(c) Lands subject to prospecting permits are those not lying within a known geothermal resources area.

(d) The Commission may include in its lease offer, areas adjacent to that for which application has been made, should it determine that such additional land lies within a known geothermal resources area.

2251. DURATION OF LEASES AND PERMITS.

(a) Leases (both preferential and bid) shall be issued for a primary term of 20 years, and so long thereafter as geothermal resources are being produced or utilized or are capable of being produced or utilized in commercial quantities from such lands or from such lands unitized therewith; provided, that such leases shall not exceed a term of 99 years.

(b) Prospecting permits are limited to a period not exceeding three years, extendable for a period of an additional two years at the discretion of the Commission.

2252. PROSPECTING PERMIT PROCEDURES.

(a) Any person qualified under Section 1902(d) may apply for a prospecting permit by filing with the Commission a written application containing the following:

(1) Name, address, and status of citizenship of applicant; if applicant is a corporation, the corporate name and name of president, secretary, and officer or persons authorized to execute contracts and leases.

(2) A description of the state lands involved.

(3) A statement of the use proposed.

(4) A statement of the character and use of adjoining lands.

(5) A statement of the methods proposed to be used in developing the deposits.

(6) A statement of the quality and use of underlying groundwaters and adjacent surface waters.

(7) A statement of proposed liquid solid, or gaseous waste disposal methods necessary for the protection and preservation of existing land and water uses.

(8) A statement describing any and all state geothermal leases in which the applicant has any direct or indirect interest.

(b) The application shall be accompanied by a filing fee of \$25, an expense deposit of \$100, and a rental deposit equal to the amount of \$1 per acre for each acre or fraction thereof within the desired permit area.

(c) Permit forms shall be provided by the state for the applicant's acknowledged or witnessed execution and shall then be presented to the Commission for its approval.

(d) In case of an application covering land sold by the state, subject to a reservation by the state of the geothermal resources thereof, by anyone other than the owner of such land, notice shall be served on the owner by the applicant together with a copy of the application. Notification shall be made by certified

mail, return receipt requested. Applicant shall file a copy of the notice and the signed receipt with the State Lands Division, together with a copy of a title report from a title insurance company qualified to do business in California, or other proof satisfactory to the State Lands Division that the person notified is in fact the present surface owner.

#### 2253. WORK REQUIREMENTS.

Permittee shall conduct prospecting work to determine the geothermal resources character of the land under permit. Such prospecting work may include geological, geophysical, geothermal and geochemical work and other operations. Data obtained from such prospecting work shall be made available to the State Lands Division and the Geothermal Resources Board for their confidential use and may not be released to any other person or agency without the permittee's written authorization. Work performed outside the permit area may be used to satisfy the work requirement if, in the judgment of the State Lands Division, it determines the geothermal character of the land.

#### 2254. CONDITIONS OF OTHER STATE AGENCIES.

Leases or permits, or extensions thereof, on state-owned lands under the jurisdiction of a state department or agency other than the Commission, shall be subject to such reasonable terms and conditions as may be prescribed by such other department or agency to ensure the adequate utilization of the surface or waters thereon for the purposes for which said lands are being administered or acquired.

#### 2255. PREFERENTIAL LEASE PROCEDURES.

Upon classification of any land within the permit area as being known geothermal resources land, permittee shall be entitled to a preferential lease for such land, providing permittee submits his application for a lease for such land within ninety (90) days after being notified of the classification, establishes his qualifications, and completes said application with due diligence. Unless permittee does so, his right to a preferential lease shall terminate.

#### 2256. BIDDING PROCEDURES.

Lands lying within a known geothermal resources area, not subject to a preferential lease under a prospecting permit, may be leased pursuant to a published notice of intention to receive bids in accordance with Section 1908. The minimum initial expense deposit required under the provisions of Section 1903.2 shall be \$100.

#### 2257. DEVELOPMENT PROGRAM.

(a) Operations under any lease or permit shall be carried on in a safe and workmanlike manner in accordance with generally accepted good engineering practice and due regard shall be given the protection of life and property, preservation of the environment and the conservation of natural resources.

(b) The State Lands Division may determine the spacing of wells and the rate of development and production of such wells to prevent the waste of

geothermal resources and to promote their maximum economic recovery from, and the conservation of reservoir energy in, each zone or separate underground source of geothermal resources. Such determination shall be based on recognized engineering standards and shall be consistent with prevailing economic conditions.

(c) Geothermal resources shall not be disposed of except in accordance with sales contracts or other methods which have first been approved of in writing by the State Lands Commission.

(d) All geothermal resources wells shall be tested when required by the State Lands Division.

(e) No lessee or permittee shall drill a geothermal resources well on or into state lands except on prior approval of the State Lands Division and subject to the terms of the enabling statute and lease or permit.

(f) Lessee or permittee, before commencing the work of drilling a well, shall notify the State Lands Division of its intention to drill, and such notice shall contain the location and elevation above sea level of derrick, proposed depth, bottom hole location, casing program, proposed completion program and the size and shape of drilling site, excavation and grading planned, and location of existing and proposed access roads. Where the surface of the leased or permitted lands is under the jurisdiction of a state agency other than the Commission, lessee or permittee shall provide at the same time such information listed above as is pertinent to that agency.

(g) No well shall be perforated, redrilled, plugged back, or altered except on prior approval of the State Lands Division.

(h) All drilling, redrilling, perforating, or work-over operations within any geothermal resources zone shall be done with an accepted circulating medium.

(i) No generating plants, buildings, structures, production equipment, metering systems, pipelines or roads for the production of geothermal resources shall be installed except on prior state approval. Any changes in said equipment or facilities shall be approved prior thereto. Maps, drawings and specifications for said installations shall be furnished upon request.

(j) Metering equipment shall be maintained and operated in such a manner as to meet acceptable standards of accuracy. Use of such equipment shall be discontinued at any time upon determination by the State Lands Division that standards of accuracy or quality are not being maintained, with production stopped until measurement accuracy has been obtained.

(k) Lessee or permittee shall diligently maintain all wells and continuously vent and periodically blow wells to prevent water condensation and cooling of the well bore.

(l) Before work is commenced to abandon any well, notice shall be given to the State Lands Division, which notice shall show the condition of the well and the proposed method of abandonment. No well may be abandoned unless prior approval of the method of abandonment has been obtained from the State Lands Division.

2258. COMPLIANCE WITH LAWS AND RULES.

Lessee or permittee shall comply with all valid laws of the United States and of the State of California and with all valid ordinances of cities and counties applicable to lessee's or permittee's operations, including without limitation by reason of the specification thereof lessee's or permittee's compliance with all provisions of the Public Resources Code and of the Statutes of California not within the jurisdiction of the Commission. Lessee or permittee shall comply with all provisions of Division 3 and Division 6 of the Public Resources Code, Statutes of California, applicable to lessee's or permittee's operations, and with all rules and regulations now promulgated by the Commission or such other rules and regulations as may from time to time be issued by the Commission or by other state agencies applicable to the lessee's or permittee's operations. Lessee or permittee shall not discriminate in its employment practices against any person because of race, color, religion, ancestry or national origin.

2259. BOND.

Lessee or permittee shall, at the time of the execution of the lease or permit, furnish and thereafter maintain, in favor of the State, a good and sufficient bond in such sum as may be specified by the State Lands Commission, guaranteeing faithful performance by the lessee or permittee of the terms, covenants and conditions of the lease or permit.

2260. INDEMNIFICATION.

Lessee or permittee agrees to indemnify and save harmless the State of California, its officers, agents and employees against any and all claims, demands, causes of action, or liability of any kind which may be asserted against or imposed upon the State of California or any of its officers, agents, or employees by any third person, or entity arising out of or connected with the issuance of this lease or permit, operations hereunder, or the use by lessee or permittee or its agents, employees or contractors of the land. Without limiting the generality of the foregoing, such indemnification shall include any claim, demand, cause of action or liability of any kind asserted against or imposed upon the State of California or any of its officers, agents or employees arising out of or connected with any alleged or actual violation by lessee or permittee, its agents, employees or contractors of property or contractual rights of any third person or entity. At the option of the Commission, lessee or permittee shall procure and maintain liability insurance for the benefit of the state in an amount satisfactory to the Commission.

2261. RECORDS AND REPORTS.

Lessee or permittee shall furnish to the State Lands Division for its confidential use the following in the manner and form prescribed:

(a) Statements showing the work performed upon the leased or permitted area and the amount, quality, and value of all geothermal resources produced, shipped or sold;

(b) Copies of all physical and factual exploration results, logs and surveys which may be conducted, well test data, and other data resulting from operations under the lease or permit.

## 2262. COMMINGLED PRODUCTION.

Geothermal resources from any two or more wells, regardless of whether such wells are located on state land, may be commingled when the metering system used to measure geothermal resources has been approved by the State Lands Division. Prior to the installation of the metering system, lessee or permittee shall submit for approval a schematic drawing of the proposed system and specifications of the major equipment components. The Division will determine if acceptable standards of accuracy for measuring geothermal resources have been obtained, and may approve commingling of geothermal resources. The metering equipment shall be maintained and operated in such a manner as to meet acceptable standards of accuracy. Use of the equipment shall be discontinued at any time upon determination by the State Lands Division that standards of measurement accuracy or quality are not being maintained, with such commingling stopped until measurement accuracy has been obtained.

In the event that the quality and composition of the geothermal resources to be commingled are substantially different, it shall not be approved by the Division until acceptable standards and methods of payment are established.

## 2263. PROTECTION OF OTHER RESOURCES.

(a) The lessee or permittee shall remove the derrick and other equipment and facilities within sixty (60) days after lessee or permittee has ceased making use thereof in its operations.

(b) All permanent operating sites where required shall be landscaped or fenced so as to screen them from public view as far as possible. Such landscaping or fencing shall be approved in advance by the state and kept in good condition.

(c) All drilling and production operations shall be conducted in such manner as to eliminate as far as practicable dust, noise, vibration, or noxious odors. Operating sites shall be kept neat, clean and safe. Drilling dust shall be controlled to prevent widespread deposition of dust. Detrimental material deposited on trees and vegetation shall be removed. The determination as to what is detrimental is a state responsibility.

(d) Wastes shall be discharged in accordance with requirements and prohibitions prescribed by the Regional Water Quality Control Board. The State Lands Division and the state agency having jurisdiction over the affected lands shall also approve the place and manner of such waste disposal.

(e) Lessee or permittee shall communicate with the Department of Fish and Game prior to any operations which may adversely affect fish and wildlife resources.

(f) Any operations disturbing the soil surface, including road building, construction, and movement of heavy equipment in support of or relating to specific geothermal exploration or development activities shall be conducted in such manner as will not result in unreasonable damage to trees and plant cover, soil erosion, or in degradation of waters of the state, including fish and aquatic life habitat.



(g) Pollution of the ocean and tidelands, rivers, lakes or other bodies of water, and all impairment of and interference with bathing, fishing, or navigation in the waters of the ocean, or any bay or inlet thereof, is prohibited, and no brine, minerals, or any refuse of any kind from any well or works shall be permitted to be deposited on or pass into waters of the ocean, any bay or inlet thereof, rivers, lakes or other bodies of water, without specific written state authorization.

(h) No permanent filled lands, piers, platforms, or other fixed or floating structures in, on, or over the tide and submerged lands covered by the lease or permit or otherwise available to the lessee or permittee shall be permitted to be constructed, used, maintained, or operated without obtaining any and all permits required under applicable state and federal law, rules or regulations, or complying with all valid ordinances of cities and counties applicable to lessee's or permittee's operations, or without securing the written permission of the State Lands Division specifically authorizing the activity.

(i) Existing roads and bridges on or serving the area under lease or permit shall be maintained in a condition equal to or better than that before use. New roads and bridges shall be located, constructed, and maintained in accordance with state specifications.

(j) Timber damaged, destroyed, or used on the area under lease or permit shall be compensated for at market value to the state. Borrow pit material shall not be obtained from state lands without permission and payment of market value.

(k) Improvements, structures, telephone lines, trails, ditches, pipelines, water developments, fences and other property of the state or other lessees or permittees, and permanent improvements and crops of surface owners, shall be protected from damage and repaired or replaced when damaged.

(l) Access to drilling or production sites by the public shall be controlled by the lessee or permittee to prevent accidents or injury to persons or property.

(m) Drilling mud shall be ponded in a safe manner and place, and where required by the state, posted with danger signs, and fenced to protect persons, domestic animals, and wildlife. Upon completion of drilling, the mud shall be disposed of, or after drying in place, covered with a protective layer of soil.

(n) Areas cleared and graded for drilling and production facility sites shall be kept to a reasonable number and size, and be subject to state approval.

(o) Lessee or permittee shall conduct its operations in a manner which will not interfere with the right of the public to fish upon and from the public lands of the state and in the waters thereof or will not preclude the right of the public to use of public lands and waters.

#### 2264. SUSPENSION OF OPERATIONS.

In the event of any disaster or of pollution caused in any manner or resulting from operations under a lease or permit, lessee or permittee shall

suspend any drilling and production operations, except those which are corrective, or mitigative, and immediately and promptly notify the State Lands Division. Such drilling and production operations shall not be resumed until adequate corrective measures have been taken and authorization for resumption of operations has been made by the State Lands Division. The lessee or permittee shall suspend any drilling and production operations, except those which are corrective or mitigative, if the State Lands Commission shall determine that there is a substantial likelihood that continued operations would endanger public health or safety or cause serious damage to property or the natural environment. Such operations shall not be resumed until the Commission shall determine that adequate corrective measures are feasible and have been taken to eliminate such substantial likelihood.

2265. SURRENDER OF PREMISES.

At the expiration of the lease or permit, or sooner termination thereof, lessee or permittee shall restore the lands covered by said lease or permit to their original condition insofar as it is reasonable to do so, except for such roads, excavations, alterations or other improvements which may be designated for retention by the State Lands Division or any state agency having jurisdiction over the affected lands. Where determined necessary by the Division and such state agency, cleared sites and roadways shall be replanted with grass, shrubs or trees.