CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD COLORADO RIVER BASIN REGION

ORDER NO. 88-129

WASTE DISCHARGE REQUIREMENTS FOR MAGMA POWER COMPANY J. M. LEATHERS POWER PLANT GEOTHERMAL BRINE HOLDING BASIN SALTON SEA KNOWN GEOTHERMAL RESOURCE AREA (KGRA) Imperial County

The California Regional Water Quality Control Board, Colorado River Basin Region, finds that:

- Magma Power Company (hereinafter referred to as the discharger), 11770 Bernardo Plaza Court, Suite 366, San Diego, California, 92128, submitted a Report of Waste Discharge with additional information for completion of the Report on May 2, 1988.
- 2. The discharger proposes to construct a containment basin with a capacity of about 1,629,000 gallons. Said containment basin would be used to temporarily retain geothermal brines and cooling tower blowdown during emergencies and during maintenance operations. Fluids removed therefrom would be injected subsurface.
- The containment basin would be located at the J. M. Leathers (35 megawatt) Power Plant site in the SE 1/4, SE 1/4, Section 25, T11S, R13E, SBB&M.
- 4. The Water Quality Control Plan for the Colorado River Basin Region of California was adopted by the Regional Board on November 14, 1984.
- 5. Beneficial uses of water to be protected by this Order are as follows:
 - a. Ground Water
 - 1. Shallow ground waters at the discharge location are brackish and are not beneficially used.
 - 2. Deep ground waters are brine and are being investigated for geothermal development.

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- b. New and Alamo Rivers and Imperial Valley Irrigation Drains
 - 1. Freshwater replenishment for Salton Sea.
 - 2. Freshwater habitat for fish and wildlife.
 - 3. Recreation nonwater contact.
- 6. Environmental Impact Report SCH #80102409 was prepared for this project. Imperial County Planning Department determined that this project will not have a significant effect on the environment in a Notice of Determination approved on October 28, 1987. Regional Board staff has reviewed these documents and finds that this project should not have a significant impact on water quality if conducted according to requirements and provisions of this Order.
- 7. The Board has notified the discharger and interested agencies and persons of its intent to issue waste discharge requirements for the discharge.
- 8. The Board in a public meeting heard and considered all comments pertaining to the discharge.
- IT IS HEREBY ORDERED, the discharger shall comply with the following:
- A. Discharge Specifications and Prohibitions
 - 1. Neither the treatment nor the discharge of wastewater shall create pollution or nuisance as defined in Division 7 of the California Water Code.
 - 2. Geothermal fluids and other wastes shall not enter any canals, natural or man-made drainage channels, or drains (including subsurface drainage systems) except as allowed under an appropriate National Pollutant Discharge Elimination System (NPDES) Permit.
 - 3. Storage of fluids described in Finding No. 2, above, other than into a containment basin having a liner permeability of 1×10^{-8} cm/sec, or less, is prohibited, and the fluids contained therein shall not penetrate through the lining during the containment period.
 - 4. Materials discharged to and/or stored in a containment basin shall not overflow said basin.
 - 5. Adequate protective works and maintenance shall be provided to assure that the containment basin shall not become eroded or otherwise damaged by floods occurring during the project life of said basin.
 - 6. A minimum freeboard of two (2) feet shall be maintained in the containment basin at all times.

- 7. Final disposal of residual wastes and cleanup of the containment basin shall be accomplished to the satisfaction of the Regional Board's Executive Officer upon abandonment of operations.
- B. Provisions
 - 1. The discharger shall comply with "Monitoring and Reporting Program No. 88-129", and future revisions thereto, as specified by the Executive Officer.
 - 2. The discharger shall submit to the Regional Board a proposal to monitor the uppermost aquifer beneath the containment basin during the project life of the basin. Said proposal shall be submitted within 60 days of the adoption of this Order, and shall be implemented after receiving the approval of the Executive Officer.
 - 3. The discharger shall submit to the Regional Board, at least 30 days prior to discharge to a newly constructed containment basin, written adequate assurance that money is committed in the amount of \$50,000.00 to insure that the containment basin is cleaned up and closed in accordance with the requirements of this Order.
 - 4. Prior to discharge to a newly constructed containment basin, the discharger shall submit to the Regional Board a technical report on the construction of said basin, and a certificate signed by a California Registered Civil Engineer or Certified Engineering Geologist stating that the basin and attendant facilities are constructed to meet the requirements of this Order.
 - 5. Fluids discharged by subsurface injection shall not be injected into any subsurface aquifer which has a TDS concentration of less than 10,000 mg/l, unless the TDS concentration of the injection water is less than or equal to that of the receiving water, or as an alternative, the discharger demonstrates to the satisfaction of the Executive Officer that injection into said zone will not pose a threat to water quality.
 - 6. In the event of any change in operation, or in control or ownership of land or waste disposal facilities owned or controlled by the discharger, the discharger shall:
 - a. Notify this Board of such change; and
 - b. Transmit a copy of this Order to the succeeding owner or operator, and file a copy of the transmittal letter with this Board.
 - 7. This Order does not authorize violation of any federal, state or local laws or regulations.



I, Arthur Swajian, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, Colorado River Basin Region, on <u>November 30, 1988</u>.

Executive Officer



CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD COLORADO RIVER BASIN REGION

MONITORING AND REPORTING PROGRAM NO. 88-129 FOR MAGMA POWER COMPANY J. M. LEATHERS POWER PLANT GEOTHERMAL BRINE HOLDING BASIN SALTON SEA KNOWN GEOTHERMAL RESOURCE AREA (KGRA) Imperial County

Location of Discharge: SE 1/4, SE 1/4 Section 25, T11S, R13E, SBB&M

MONITORING

Magma Power Company (discharger) shall report monitoring data to the Regional Board in accordance with the following schedule:

- 1. At least 30 days prior to discharge to a newly constructed containment basin, submit a technical report on the construction of said basin, and a certificate signed by a California Registered Civil Engineer, or Certified Engineering Geologist, stating that the basin and attendant facilities are constructed to meet the requirements contained in Board Order No. 88-129.
- 2. At least 30 days prior to discharge to the containment basin, submit a written report on the proposed method and estimated costs of cleanup and closure in accordance with the requirements of Board Order 88-129.
- 3. Information in compliance with the approved ground water monitoring proposal (see Provision No. 2 of Board Order No. 88-129, above).
- 4. Submit monthly reports on the volume of fluid contained in the containment basin and the Total Dissolved Solids (TDS) concentration of said fluid.
- 5. Submit monthly reports on the volume and TDS concentration of fluid in the basin from which the fluid is injected into an injection well, the name and location of the well(s), and the depth of fluid injection in said well(s).
- 6. Immediately report on any accidental spillage or release of waste material, noting corrective steps taken both to clean up the spillage and to deter possible future spillage.



REPORTING

Monthly reports shall be submitted to the Regional Board by the 15th day of the following month. Reports for Item No. 6 (above) shall be forwarded immediately and shall be preceded by phone communication to the Regional Board's office, telephone number 619-346-7491. Copies of the report submitted to the Board pursuant to this Monitoring and Reporting Program shall be maintained at the operations site, and shall be made available to staff of the Regional Board upon request.

Mail reports to:

California Regional Water Quality Control Board Colorado River Basin Region 73-271 Highway 111, Suite 21 Palm Desert, CA 92260

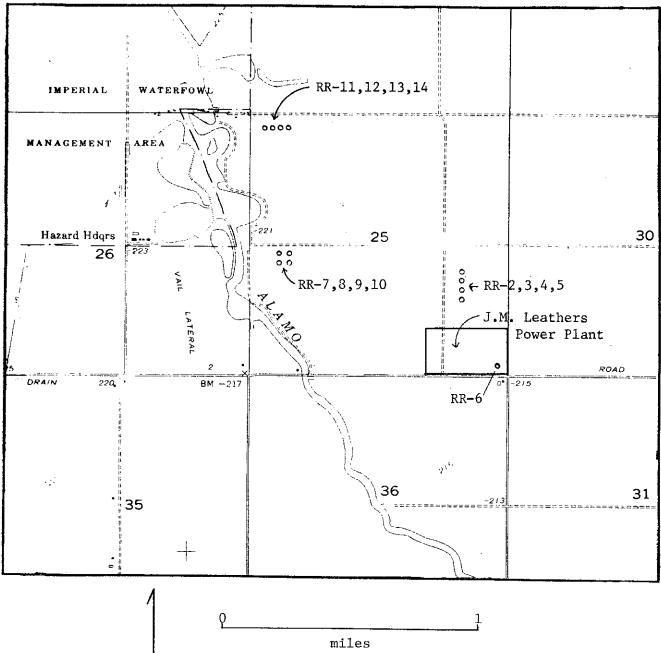
ORDERED BY:

Executive /0/

November 30, 1988

Date

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MAGMA POWER COMPANY J. M. LEATHERS POWER PLANT GEOTHERMAL BRINE HOLDING BASIN SALTON SEA KNOWN GEOTHERMAL RESOURCE AREA Imperial County SE¹/₄, SE¹/₄ Section 25, T11S, R13E, SBB&M USGS Niland 7.5 min Topographic Map

Order No. 88-129