

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION**

ORDER NO. R7-2003-0075

WASTE DISCHARGE REQUIREMENTS
FOR
MAGMA POWER COMPANY, OWNER
DESERT VALLEY COMPANY, OWNER/OPERATOR
CLASS II SOLID WASTE MANAGEMENT FACILITY
Northwest of Westmorland – Imperial County

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

1. Desert Valley Company is a wholly owned subsidiary of Magma Power Company, 7030 Gentry Road, Calipatria, CA 92233. Desert Valley Company is the landowner and operator of the Class II waste management facility located at 3301 West Highway 86, Brawley, CA 92227. Both companies shall be referred to as the discharger hereinafter.
2. On December 20, 2002, the Discharger submitted a Report of Waste Discharge to the Regional Water Quality Control Board (Regional Board) for the purpose of updating the current Waste Discharge Requirements (WDRs) to include the construction of proposed Cell III.
3. Definitions of terms used in this Order:
 - a. **Discharger** – Any person who discharges waste that could affect the quality of the waters of the state, and includes any person who owns a waste management unit or who is responsible for the operation of the waste management unit (Title 27, California Code or Regulations).
 - b. **Waste Management Facility (WMF)** – The entire parcel of property at which waste discharge operations are conducted. Such a facility may include one (1) or more waste management units.
 - c. **Waste Management Unit (WMU)** – An area of Land, or a portion of a Waste Management Facility at which waste is or was discharged. The term includes containment features, ancillary features for precipitation and drainage control and monitoring.
 - d. **Landfill** – A waste management unit at which waste is discharged in or on land for disposal. It does not include surface impoundments, waste piles, land and soil treatment.
 - e. **Monofill** - The Desert Valley Company facility is a monofill that accepts only specific types of process materials.
4. The WMF is located in Section 33, T12S, R11E, SBB&M, as shown on Attachment A.
5. Board Order No. 93-071, amending all municipal Solid Waste Landfill Board Orders to comply with federal regulations, was adopted by the California Regional Water Quality Control Board, Colorado River Basin Region (hereinafter referred to as the Regional Board) on September 15, 1993.
6. The WMF is currently regulated by WDRs Board Order No. 98-024, adopted on May 4, 1998. This Board Order updates Board Order No. 98-024 to incorporate the laws and regulations as set forth in the California Water Code and combined State Water Resources Control Board (SWRCB)/California Integrated Waste Management Board (CIWMB) Regulations, Division 2, Title 27 (hereinafter referred to as Title 27) and federal regulations under the Resource Conservation Recovery Act (RCRA), also known as Subtitle D.

7. The Imperial County Conditional Use Permit allows for the Monofill to accept geothermal drilling mud, sump material, filter cake, plastic liners, and soil contaminated with geothermal materials.
8. The existing facility has two (2) cells. Cell I of the Monofill was built in 1990 and Cell II was built in 1999.
9. The Monofill is currently classified as a Class II Waste Management Facility. Each cell has two (2) clay liners, two (2) synthetic liners, a leachate collection and removal system, and a leak detection system.
10. The discharger places geothermal-produced materials associated with geothermal development at the Monofill. The requisite permits were obtained from the Imperial County Health Department, California Integrated Waste Management Board, and other appropriate agencies. Geothermal-produced solid materials, for the purpose of this Board Order, are defined as filter cake, drilling mud materials, plastic liners used for transport, or soil contaminated with filter cake, drilling mud materials, or geothermal brines resulting from any geothermal operation in Imperial County, which is operated and/or owned in part by Magma Power Company or one of its affiliates or assignees.
11. The total site occupies 180 acres, of which approximately 26 acres have been developed. The facility currently consists of Cell I, Cell II, a leachate pond, and office/shop buildings. Construction of Cell III is anticipated to begin in 2003. The design, construction, and operation of Cell III will be similar to Cells I and II.
12. Desert Valley Company was formed to serve the product storage/solid waste disposal requirements of Magma's geothermal facilities. The maximum daily tonnage accepted at the Monofill is 750 tons.
13. Geothermal materials generated by the Magma Power Company's geothermal facilities contain Naturally Occurring Radioactive Material (NORM). The exposure and health risk to the public and workers were evaluated and determined by the EIR to be an insignificant impact. NORM for the purpose of this Board Order, shall be defined as Material containing detectable amounts of Radium-226, Thorium-228, Thorium-232, Potassium-40, Gross Alpha and Gross Beta particles.
14. The Leachate Collection and Removal System (LCRS) for the Monofill cells consists of a drain net that is placed on the top of the first synthetic liner. The purpose of the LCRS is to minimize accumulation of liquids on top of the main liner.
15. The Leak Detection System (LDS) for the Monofill consists of a drain net located between the two synthetic liners. The leak detection system is used to assist in determining that a leak may exist in the primary synthetic liner.
16. Vadose zone monitoring consists of several neutron probe access tubes. A neutron probe is used in the access tubes to measure the moisture content in the surrounding sediments.
17. The nearest surface water, the Westside Canal, is located one and one half (1½) miles north of the Monofill.
18. Ground water in the area of the Monofill occurs at a depth of 50 to 100 feet below ground surface. The direction of flow for the uppermost groundwater is estimated to be northeastward, toward Salton Sea. The total dissolved solids (TDS) of the ground water beneath the site ranges from 3,900 to 11,000 mg/L.
19. The ground water beneath the site was sampled quarterly for a year to establish the background water quality data pursuant to the requirements stipulated in Title 27 of the California Code of Regulations.

20. The Monofill is designed to withstand the probable maximum precipitation of a 100-year storm for this area. The discharger has taken measure to ensure that no rainfall creates runoff from the Monofill cells.
21. In accordance with the California Environmental Quality Act (CEQA), a mitigated negative declaration (SCH#89032206) was certified by the Imperial County Planning Commission for the Cell III expansion. The Regional Board has reviewed the Mitigated Negative Declaration and the water quality impacts of the project and concurs that the identified mitigation measures will reduce all potential impacts on water quality to less-than-significant.
22. The Water Quality Control Plan for the Colorado River Basin Region of California (Basin Plan) as amended to date, designates the beneficial uses of ground and surface water in the Region.
23. The designated beneficial uses of the ground waters in the Imperial Hydrologic Unit are:
 - a. Municipal supply (MUN)
 - b. Industrial supply (IND)
24. The monitoring and reporting requirements in Monitoring and Reporting Program No. R7- 2003-0075 are necessary to determine compliance with these WDRs and to determine the facility's impacts, if any, on ground water.
25. The United States Environmental Protection Agency (USEPA) promulgated federal regulations for storm water discharges (40 CFR, Parts 122, 123, and 124). The regulations require that specific categories of facilities, which discharge storm water associated with industrial activity, obtain a NPDES Permit and implement Best Conventional Pollutant Technology (BCPT) to reduce or eliminate industrial storm water pollution.
26. The SWRCB adopted Order No. 97-03-DWQ (General Permit No. CAS000001), specifying WDRs for discharges of storm water associated with industrial activities, excluding construction activities, and requiring submittal of a Notice of Intent (NOI) by industries to be covered under the Permit.
27. The Regional Board has notified the Discharger and all known interested agencies and persons of its intent to update WDRs for this discharge and has provided them with an opportunity for a public meeting and an opportunity to submit comments.
28. The Board, in a public meeting, heard and considered all comments pertaining to this discharge.

IT IS HEREBY ORDERED, that Board Order No. 98-024 is rescinded, and in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, the discharger shall comply with the following:

A. Specifications

1. The treatment or disposal of wastes at this facility shall not cause pollution or nuisance as defined in Section 13050 of Division 7, of the California Water Code.
2. Waste materials shall be confined to the existing footprint of the WMF, as defined in Finding No. 11, and as shown on Attachment B.
3. Thirty days prior to introduction of a new waste stream into the monofill, the Discharger must receive approval from the Regional Board's Executive Officer.
4. Waste materials shall not be discharged on any ground surface that is less than five (5) feet above the highest anticipated ground water level.

5. The Discharger shall not cause degradation of any water supply.
6. Surface drainage from tributary areas, and internal site drainage from surface or subsurface sources, shall not contact or percolate through the wastes discharged at the WMF.
7. The exterior surfaces of the disposal area, including the intermediate and final Landfill covers, shall be graded and maintained to promote lateral runoff of precipitation and to prevent ponding.
8. The WMF shall be operated and maintained to prevent inundation, washout, or erosion of wastes or covering material, which could occur as a result of floods having a predicted frequency of once in 100 years.
9. The Discharger shall implement the attached Monitoring and Reporting Program No. R7-2003-0075 in order to detect, at the earliest opportunity, any unauthorized discharge of waste constituents from the WMF, or any unreasonable impairment of beneficial uses associated with (caused by) discharges of waste to the WMF.
10. The Discharger shall use the constituents, listed in Monitoring and Reporting Program No. R7-2003-0075, Part III Summary of Self-Monitoring and Reporting Programs C.1., as "Monitoring Parameters" and revisions thereto. These Monitoring Parameters are subject to the most appropriate statistical or non-statistical test under Monitoring and Reporting Program No. R7-2003-0075, Part III, and any revised Monitoring and Reporting Program approved by the Regional Board's Executive Officer.
11. The discharge shall not cause the concentration of any Constituent of Concern or Monitoring Parameter to exceed its respective background value in any monitored medium at any Monitoring Point assigned to Detection Monitoring pursuant to Part II.B.4. of attached Monitoring and Reporting Program No. R7-2003-0075.
12. The discharge shall not cause the release of pollutants, or waste constituents in a manner that could cause a condition of contamination, or pollution to occur, as indicated by the most appropriate statistical (or non-statistical) data analysis method and retest method listed in Part III of attached Monitoring and Reporting Program No. R7-2003-0075.
13. The Discharger shall remove and relocate any wastes that are discharged at this site in violation of these requirements.
14. The Discharger shall comply with the Water Quality Protection Standards (WQPS) for Detection Monitoring established by the Regional Board in this Board Order pursuant to Section 20390, Title 27. The following are five (5) parts of the WQPS as established by the Regional Board (the terms of art used in this Board Order regarding monitoring are defined in Part I.B. of attached Monitoring and Reporting Program No. R7-2003-0075, and revisions thereto, which is hereby incorporated by reference:
 - a. Constituents of Concern (Section 20395, Title 27). The Constituents of Concern shall be those constituents listed in Part III. Summary of Self-Monitoring and Reporting Programs C.2. of Monitoring and Reporting Program No. R7-2003-0075 and revisions thereto.
 - b. Concentration Limit (Section 20400, Title 27). For each Monitoring Point assigned to a Detection Monitoring Program (as described in Monitoring and Reporting Program Part II.B.4.), the concentration limit for each Constituent of Concern (or Monitoring Parameter) shall be its background value as obtained during that Reporting Period (defined in Monitoring and Reporting Program, Part I.B.9.), as follows:

1. If 10 percent or more of the samples taken during a given Reporting Period from the Background Monitoring Points for a monitored medium exceed their respective Facility-Specific Method Detection Limit (MDL) – see Monitoring and Reporting Program Part I.B.7. – for a given constituent, then the Constituent Limit for that medium and constituents shall consist of the mean (or median, as appropriate) and the standard deviation (or other measures of central tendency, as appropriate) of all the background data obtained for that constituent from the medium during that Reporting Period; otherwise
2. The Concentration Limit for that medium and constituent shall be its MDL.
- c. Monitoring Points and Background Monitoring Points for Detection Monitoring (Section 20415, Title 27) shall be those listed in Part II.B.3. of attached Monitoring and Reporting Program No. R7-2003-0075, and any revised Monitoring and Reporting Program approved by the Regional Board's Executive Officer. Monitoring Points and Background Monitoring Points are shown on Attachment B which is made a part of this Order by reference.
- d. Points of Compliance (Section 20405, Title 27) shall be those Monitoring Points listed in Part II.B.3, as shown on Attachment B, and extend down through the zone of saturation.
- e. Compliance Period (Section 20410, Title 27). The estimated duration of the compliance period for this WMF is 30 years. Each time the Standard is not met (i.e. a release is discovered), the WMF begins a Compliance Period on the date the Regional Board directs the Discharger to begin an Evaluation and Monitoring Program (EMP). If the Discharger's Corrective Action Program (CAP) has not achieved compliance with the standard by the scheduled end of the Compliance Period, the Compliance Period is automatically extended until the WMF has been in continuous compliance for at least three (3) consecutive years.

B. Prohibitions

1. The direct or indirect discharge of any waste to any surface waters or surface drainage courses is prohibited.
2. The discharge of waste to land not owned or controlled by Discharger is prohibited.
3. The discharge of hazardous waste as defined in Title 27 at this WMF is prohibited.
4. The Discharge or deposit of designated waste as defined in Title 27 at this WMF is prohibited unless approved by the Regional Board's Executive Officer.
5. The discharge of liquid or semi-solid waste (i.e., containing less than 50 percent solids) to the WMF is prohibited unless approved by the Regional Board's Executive Officer.
6. The co-disposal of incompatible wastes is prohibited.
7. The discharge shall neither cause nor contribute to the contamination or pollution of ground water via the release of waste constituents in either liquid or gaseous phase.

C. Provisions

1. The Discharger shall comply with Monitoring and Reporting Program No. R7-2003-0075, and future revisions thereto, as specified by the Regional Board's Executive Officer.
2. The Discharger shall not cause any increases in the concentration of waste constituents in soil-pore gas, soil-pore liquid, soil or other geologic materials outside the Landfill if such waste

constituents could migrate to waters of the State in either the liquid or the gaseous phase, and cause conditions of contamination or pollution.

3. The Discharger shall immediately notify the Regional Board of any flooding, slope failure or other change in site conditions that could impair the integrity of waste containment facilities or of precipitation and drainage control structures.
4. The Discharger, within 48 hours of a significant earthquake event, shall inform the Regional Board's Executive Officer by telephone of any physical damages to the containment features and ground water monitoring facilities. Within 10 working days, the Discharger shall submit to the Regional Board a detailed post-earthquake report describing any physical damages to the containment features and/or ground water monitoring systems, and a corrective action plan to be implemented at the WMF.
5. Within 180 days of the adoption of this Board Order, the Discharger shall submit to the Regional Board, pursuant to Section 20380(b) of Title 27, assurances of financial responsibility acceptable to the Regional Board's Executive Officer for initiating and completing corrective action for all known or reasonably foreseeable releases for the WMF.
6. One (1) year prior to the anticipated closure of the facility or any Unit (portion) thereto, the Discharger shall submit to the Regional Board, for review and approval by the Regional Board's Executive Officer, a final closure and post-closure maintenance plan, pursuant to Title 27. The final closure and post-closure maintenance plan shall include seismicity studies.
7. The Discharger shall submit to this Regional Board and to the California Integrated Waste Management Board, evidence of Financial Assurance for Closure and Post Closure, pursuant to Section 22212, Title 27. The post-closure period shall be at least 30 years. However, the post-closure maintenance period shall extend as long as the waste poses a threat to water quality.
8. The Discharger shall maintain legible records on the volume and type of each waste discharged at the WMF. These records shall be available for review by representatives of the Regional Board at any time during normal business hours. At the beginning of the post-closure maintenance period, copies of these records shall be sent to the Regional Board.
9. The Discharger shall maintain visible monuments identifying the boundary limits of the entire WMF.
10. The Discharger shall comply with the existing load-checking program.
11. The Discharger shall comply with all applicable provisions of Title 27 that are not specifically referred to in this Order.
12. Adequate measures shall be taken to assure that flood or surface drainage waters do not erode or otherwise render portions of the WMF inoperable.
13. Annually, prior to the first day of November, any necessary erosion control measures shall be implemented, including any necessary construction, maintenance, or repairs of precipitation and drainage control facilities to prevent erosion and flooding of the WMF. The report thereon shall be submitted to the Regional Board by **November 15** of each year.
14. All containment structures and erosion and drainage control systems shall be designed and constructed under direct supervision of a California Registered Civil Engineer, or Certified Engineering Geologist, and shall be certified by the individual as meeting prescriptive standards and performance goals of Title 27.

15. The Discharger shall allow the Regional Board, or an authorized representative, upon presentation of credentials and other documents as may be required by law, to:
 - a. Enter upon the premises regulated by this Board Order, or the place where records must be kept under the conditions of this Board Order;
 - b. Have access to and copy, at reasonable times, any records that shall be kept under the conditions of this Board Order;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Board Order;
 - d. Sample or monitor at reasonable times, for the purpose of assuring compliance with this Board Order or as otherwise authorized by the California Water Code, any substances or parameters at this location.
16. The Discharger shall ensure that all site-operating personnel are familiar with the content of this Board Order, and shall maintain a copy of this Board Order at the site.
17. Prior to any modifications at this facility that would result in change in the quality or quantity of waste discharged at the WMF, the Discharger shall report all pertinent information in writing to the Regional Board and obtain revised WDRs prior to any modifications being implemented.
18. Prior to any change in ownership of this operation, the Discharger shall transmit a copy of this Board Order to the succeeding owner, and forward a copy of the transmittal letter to the Regional Board.
19. The Discharger is the responsible party for the WDRs and the Monitoring and Reporting Program for the WMF. The Discharger shall comply with all conditions of the WDRs. Violations may result in enforcement actions, including Regional Board Orders or court orders, requiring corrective action or imposing civil monetary liability, or in modification or revocation of these WDRs by the Regional Board.
20. The Regional Board considers the property owner to have a continuing responsibility for correcting any problems that may arise in the future, as a result of this waste discharge.
21. This Board Order does not authorize violation of any federal, state, or local laws or regulations.
22. This Board Order does not convey any property rights of any sort or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal right, nor any infringement of federal, state, or local laws or regulations.
23. The Discharger shall furnish, under penalty of perjury, technical monitoring program reports. Such monitoring reports shall be submitted in accordance with the specifications prepared by the Regional Board's Executive Officer. Such specifications are subject to periodic revisions as may be warranted.
24. The Discharger may be required to submit technical reports as directed by the Regional Board's Executive Officer.
25. Unless otherwise approved by the Regional Board's Executive Officer, all analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services.

All analyses shall be conducted pursuant to the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants", promulgated by the USEPA.

26. The Discharger shall submit a Notice of Intent (NOI) to the SWRCB to be covered under the Statewide General NPDES Permit for Storm Water Discharges Associated with Industrial Activities, Order No. 97-03-DWQ, NPDES No. CAS000001. The Discharger shall comply with all the discharge prohibitions, receiving water limitations, and provisions of the General Permit.
27. The Discharger shall submit a sampling and monitoring plan for storm water discharges to the Regional Board's Executive Officer for no later than 90 days after the adoption of this Board Order. The plan shall meet the minimum requirements of Section B., Monitoring and Reporting Requirements of the Statewide General NPDES Permit for Storm Water Discharges Associated with Industrial Activities, Order No. 97-03-DWQ NPDES No. CAS000001.
28. This Board Order is subject to Regional Board review and updating, as necessary to comply with changing State or Federal laws, regulations, policies, or guidelines, or changes in the discharge characteristics.

I, Philip A. Gruenberg, 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 September 3, 2003.

Executive Officer