

GTHT - _____1_____

Public Meeting

4/07/2009



New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson
Governor

Joanna Prukop
Cabinet Secretary
Reese Fullerton
Deputy Cabinet Secretary

Mark Fesmire
Division Director
Oil Conservation Division



April 10, 2009

Mr. Steve Brown
Los Lobos Renewable Power, L.L.C.
5152 North Edgewood Drive, Suite 375
Provo, Utah 84604

**RE: LOS LOBOS RENEWABLE POWER, L.L.C. - LIGHTNING DOCK
GEOTHERMAL NO. 1 (HI-01) DISCHARGE PERMIT (GTHT-001)
NE/4 SW/4 OF SECTION 7, TOWNSHIP 25 SOUTH, RANGE 19 WEST,
NMPM, HIDALGO COUNTY, NEW MEXICO
CLASS V INJECTION WELLS AND GEOTHERMAL PRODUCTION OR
DEVELOPMENT WELLS, TOWNSHIP 25 SOUTH, RANGES 19 AND 20 WEST,
NMPM, HIDALGO COUNTY, NEW MEXICO**

Dear Mr. Brown:

Pursuant to the Water Quality Control Commission (WQCC) Regulations 20.6.2.3104 through 20.6.2.3114 NMAC (*Permitting and Ground Water Standards*) and 20.6.2.5000 through 20.6.2.5299 NMAC (*Underground Injection Control*), the Oil Conservation Division (OCD) hereby approves the discharge permit for of three (3) Class V geothermal injection wells and authorizes the operation five (5) production or development wells for the Los Lobos Renewable Power, L.L.C. (**owner/operator**) for the above referenced site, contingent upon the conditions specified in the enclosed **Attachment 1 to the Discharge Permit**. The owner/operator geothermal power plant is located in the NE/4 SW/4 of Section 7, Township 25 South, Range 19 West, NMPM, Hidalgo County, New Mexico. The Class V geothermal injection wells and the production or development wells are located in Township 25 South, Ranges 19 and 20 West, NMPM, Hidalgo County, New Mexico.

Class V Injection Wells

Well 42-18 is located in the NE/4, NW/4 of Section 18 (1307 FNL and 2123 FWL)
Well 51-07 is located in the NW/4, NE/4 of Section 07 (169.2 FNL and 2406.9 FEL)
Well 53-12 is located in the SW/4, NE/4 of Section 12 (1574.8 FNL and 3350 FWL)



Mr. Steve Brown
Los Lobos Renewable Power, L.L.C.
April 10, 2009
Page 2

Geothermal Production or Development Wells

Well 13-07 is located in the SW/4, NW/4 of Section 7 (3781 FSL and 530 FWL)
Well 33-07 is located in the SE/4, NW/4 of Section 7 (3721 FSL and 1789 FWL)
Well 45-07 is located in the NE/4, SW/4 of Section 7 (2360 FSL and 2278 FWL)
Well 47-07 is located in the SE/4 SW/4 of Section 7 (1219 FSL and 2266 FWL)
Well 53-07 is located in the SW/4 NE/4 of Section 7 (3775 FSL and 3052 FWL)

Enclosed are two copies of the conditions of approval. **Please sign and return one copy to the Oil Conservation Division (OCD) Santa Fe Office within 30 days of receipt of this letter including permit fees.**

Please be advised that approval of this permit does not relieve the owner/operator of responsibility should operations result in pollution of surface water, ground water or the environment. Nor does approval of the permit relieve the owner/operator of its responsibility to comply with any other applicable governmental authority's rules and regulations.

If you have any questions, please contact Carl Chavez of my staff at (505-476-3491) or E-mail carlj.chavez@state.nm.us. On behalf of the staff of OCD, I wish to thank you and your staff for your cooperation during this discharge permit review.

Sincerely,

Daniel Sanchez
Underground Injection Control Director

DS/cc
Attachments - 1
xc: OCD District Office

ATTACHMENT 1
LIGHTNING DOCK GEOTHERMAL NO. 1 (HI-01) (GTHT-001)
DISCHARGE PERMIT APPROVAL CONDITIONS

- 1. Payment of Discharge Plan Fees:** All discharge permits are subject to WQCC Regulations. Every billable facility that submits a discharge permit application will be assessed a filing fee of \$100.00 plus a renewal flat fee (*see* WQCC Regulation 20.6.2.3114 NMAC). The Oil Conservation Division (OCD) has received the required \$100.00 filing fee and the \$1700.00 Class V Geothermal Well permit fee.
- 2. Permit Expiration and Renewal:** Pursuant to WQCC Regulation Paragraph 4 of Subsection H of 20.6.2.3109 NMAC, this permit is valid for a period of five years. **This permit will expire on June 4, 2014** and an application for renewal should be submitted no later than 120 days before that expiration date. Pursuant to WQCC Regulation Subsection F of 20.6.2.3106 NMAC, if a discharger submits a discharge permit renewal application at least 120 days before the discharge permit expires and is in compliance with the approved permit, then the existing discharge permit will not expire until the application for renewal has been approved or disapproved. *Expired permits are a violation of the Water Quality Act {Chapter 74, Article 6 NMSA 1978} and civil penalties may be assessed accordingly.*
- 3. Permit Terms and Conditions:** Pursuant to WQCC Regulation 20.6.2.3104 NMAC, when a permit has been issued, the owner/operator must ensure that all discharges shall be consistent with the terms and conditions of the permit. In addition, all facilities shall abide by the applicable rules and regulations administered by OCD pursuant to the Geothermal Resources Conservation Act (71-5-1 through 71-5-24 NMSA) and the Geothermal Power regulations (19.14.1 through 19.14.132 NMAC).
- 4. Owner/Operator Commitments:** The owner/operator shall abide by all commitments submitted in its May 12, 2008 discharge permit application, including attachments and subsequent amendments and these conditions for approval. Permit applications that reference previously approved plans on file with OCD shall be incorporated in this permit and the owner/operator shall abide by all previous commitments of such plans and these conditions for approval.
- 5. Modifications:** WQCC Regulations Subsection C of 20.6.2.3107 NMAC, 20.6.2.3109 NMAC and Subsection I of 20.6.2.5101 NMAC addresses possible future modifications of a permit. The owner/operator (discharger) shall notify OCD of any facility expansion, production increase or process modification that would result in any significant modification in the discharge of water contaminants. The Division Director may require a permit modification if any water quality standard specified at WQCC Regulation 20.6.2.3103 NMAC is being or will be exceeded or if a toxic pollutant as defined in WQCC Regulation 20.6.2.7 NMAC is present in ground water at any place of withdrawal for present or reasonably foreseeable future use or that the Water Quality Standards for Interstate and Intrastate streams as specified in WQCC Regulation 20.6.4 NMAC (*Water Quality Standards for Interstate and Intrastate Streams*) are being or may be violated in surface water in New Mexico.



6. Waste Disposal and Storage: The owner/operator shall dispose of all wastes at an OCD-approved facility. Only geothermal RCRA-exempt wastes may be disposed of by injection in a Class II well. RCRA non-hazardous, non-exempt geothermal wastes may be disposed of at an OCD-approved facility upon proper waste determination pursuant to 40 CFR Part 261. Any waste stream that is not listed in the discharge permit application must be approved by OCD on a case-by-case basis.

A. Disposal Of Certain Non-Domestic Waste At Solid Waste Facilities: Pursuant to 19.15.35.8 NMAC disposal of certain non-domestic waste without notification to OCD is allowed at NMED permitted solid waste facilities if the waste stream has been identified in the discharge permit and existing process knowledge of the waste stream does not change.

B. Waste Storage: The owner/operator shall store all waste in an impermeable bermed area, except waste generated during emergency response operations for up to 72 hours. All waste storage areas shall be identified in the discharge permit application. Any waste storage area not identified in the permit shall be approved on a case-by-case basis only. The owner/operator shall not store geothermal waste on-site for more than 180 days unless approved by OCD.

7. Drum Storage: The owner/operator must store all drums, including empty drums, containing materials other than fresh water on an impermeable pad with curbing. The owner/operator must store empty drums on their sides with the bungs in place and lined up on a horizontal plane. The owner/operator must store chemicals in other containers, such as tote tanks, sacks or buckets on an impermeable pad with curbing.

8. Process, Maintenance and Yard Areas: The owner/operator shall either pave and curb or have some type of spill collection device incorporated into the design at all process, maintenance and yard areas which show evidence that water contaminants from releases, leaks and spills have reached the ground surface.

9. Above-Ground Tanks: The owner/operator shall ensure that all aboveground tanks have impermeable secondary containment (*e.g.*, liners and berms), which will contain a volume of at least one-third greater than the total volume of the largest tank or all interconnected tanks. The owner/operator shall retrofit all existing tanks before discharge permit renewal. Tanks that contain fresh water or fluids that are gases at atmospheric temperature and pressure are exempt from this condition.

10. Labeling: The owner/operator shall clearly label all tanks, drums and containers to identify their contents and other emergency notification information. The owner/operator may use a tank code numbering system, which is incorporated into their emergency response plans.

11. Below-Grade Tanks/Sumps and Pits/Ponds.

A. All below-grade tanks and sumps must be approved by OCD prior to installation and must incorporate secondary containment with leak detection into the design. The owner/operator shall retrofit all existing systems without secondary containment and leak detection before discharge permit renewal. Owner/operator must test all existing below-grade tanks and sumps without secondary containment and leak detection annually, or as specified herein. For all systems that have secondary containment with leak detection, owner/operator shall perform a monthly inspection of the leak detection system to determine if the primary containment is leaking. Small sumps or depressions in secondary containment systems used to facilitate fluid removal are exempt from these requirements if fluids are removed within 72 hours.

B. All pits and ponds, including modifications and retrofits, shall be designed by a certified registered professional engineer and approved by OCD prior to installation. In general, all pits or ponds shall have approved hydrologic and geologic reports, location, foundation, liners and secondary containment with leak detection, monitoring and closure plans. All pits or ponds shall be designed, constructed and operated so as to contain liquids and solids in a manner that will protect fresh water, public health, safety and the environment for the foreseeable future. The owner/operator shall retrofit all existing systems without secondary containment and leak detection before discharge permit renewal.

C. The owner/operator shall ensure that all exposed pits, including lined pits and open top tanks (8 feet in diameter or larger) shall be fenced, screened, netted or otherwise rendered non-hazardous to wildlife, including migratory birds. Where netting is not feasible, routine witnessing and/or discovery of dead wildlife and migratory birds shall be reported by the owner/operator to the appropriate wildlife agency with notification also provided to OCD in order to assess and enact measures to prevent the above from reoccurring.

D. The owner/operator shall maintain the results of tests and inspections at the facility covered by this discharge permit and available for OCD inspection. The owner/operator shall report the discovery of any system which is found to be leaking or has lost integrity to OCD within 15 days. The owner/operator may propose various methods for testing such as pressure testing to 3 pounds per square inch greater than normal operating pressure and/or visual inspection of cleaned tanks and/or sumps or other OCD-approved methods. The owner/operator shall notify OCD at least 72 hours prior to all testing.

12. Underground Process/Wastewater Lines:

A. The owner/operator shall test all underground process/wastewater pipelines at least once every five (5) years to demonstrate their mechanical integrity, except lines containing fresh water or fluids that are gases at atmospheric temperature and pressure. The owner/operator shall submit a comprehensive listing of process/wastewater pipelines to OCD within three months of the date of the permit issuance. The owner/operator shall test pressure rated pipe by pressuring up to one and one-half times the normal operating pressure, if possible or for atmospheric drain systems,

to 3 pounds per square inch greater than normal operating pressure and pressure held for a minimum of 30 minutes with no more than a 1% loss/gain in pressure. The owner/operator may use other methods for testing if approved by OCD.

B. The owner/operator shall maintain underground process and wastewater pipeline schematic diagrams or plans showing all drains, vents, risers, valves, underground piping, pipe type, rating, size and approximate location. All new underground piping must be approved by OCD prior to installation. The owner/operator shall report any leaks or loss of integrity to OCD within 15 days of discovery. The owner/operator shall maintain the results of all tests at the facility covered by this discharge permit and they shall be available for OCD inspection. The owner/operator shall notify OCD at least 72 hours prior to all testing.

13. Class V Wells: The owner/operator shall close all Class V wells (*e.g.*, septic systems, leach fields, dry wells, etc.) that inject non-hazardous industrial wastes or a mixture of industrial wastes and domestic sanitary effluent wastes, unless it can be demonstrated that ground water will not be impacted in the reasonably foreseeable future. Leach fields and other wastewater disposal systems at OCD-regulated facilities that inject sanitary effluent and non-hazardous fluid into or above an underground source of drinking water are considered Class V injection wells under the EPA UIC program. Class V wells that inject domestic sanitary effluent waste only must be permitted by the New Mexico Environment Department (NMED).

14. Housekeeping: The owner/operator shall inspect all systems designed for spill collection/prevention and leak detection at least monthly to ensure proper operation and to prevent over topping or system failure. All spill collection and/or secondary containment devices shall be emptied of fluids within 72 hours of discovery. The owner/operator shall maintain all records at the facility and available for OCD inspection.

15. Spill Reporting: The owner/operator shall report all unauthorized discharges, spills, leaks and releases and shall conduct corrective actions pursuant to WQCC Regulation 20.6.2.1203 NMAC and 19.15.29 NMAC. The owner/operator shall notify both OCD District Office and the Santa Fe Office within 24 hours and file a written report within 15 days. The owner/operator shall notify OCD of any fire, break, leak, spill or blowout occurring at any geothermal drilling, producing, transporting, treating, disposal or utilization facility in the State of New Mexico by the person operating or controlling the facility pursuant to 19.14.36.8 NMAC.

16. OCD Inspections: OCD may impose additional requirements on the facility and modify the permit conditions based on OCD inspections.

17. Storm Water: The owner/operator shall implement and maintain run-on and runoff plans and controls. The owner/operator shall not discharge any water contaminant that exceeds the WQCC standards specified in WQCC Regulations 20.6.2.3103 NMAC or 20.6.4 NMAC including any oil sheen, in any storm water run-off. The owner/operator shall notify OCD within 24 hours of discovery of any releases and shall take immediate corrective action(s) to stop the discharge.

18. Unauthorized Discharges: The owner/operator shall not allow or cause water pollution, discharge or release of any water contaminant that exceeds the WQCC standards listed in 20.6.2.3103 NMAC (*Standards for Ground Water of 10,000 mg/L TDS Concentration or Less*) or 20.6.4 NMAC (*Water Quality Standards for Interstate and Intrastate Streams*) unless specifically listed in the permit application and approved herein.

An unauthorized discharge is a violation of this permit.

19. Vadose Zone and Water Pollution: The owner/operator shall address any contamination through the discharge permit process or pursuant to WQCC 20.6.2.4000 through 20.6.2.4116 NMAC (*Prevention and Abatement of Water Pollution*). OCD may require the owner/operator to modify its permit for investigation, remediation, abatement and monitoring requirements for any vadose zone or water pollution. Failure to perform any required investigation, remediation, abatement or to submit subsequent reports will constitute a violation of the permit.

20. Additional Site Specific Conditions - Water Quality Monitoring Program: The owner/operator shall implement the following water quality monitoring programs.

A. Aquatic Toxicity Testing: Prior to the startup of geothermal operations, the owner/operator shall conduct an aquatic toxicity test (ATT) on the Tilapia fish species present at the AmeriCulture aquaculture facility located down-gradient from the owner/operators proposed Class V injection well locations with all NALCO cooling-tower chemical constituents. The chemicals used in the ATT shall consist of the high range application of all mixed Nalco chemicals proposed during the hearing on December 1, 2008, to determine the LD₅₀ under a worse-case scenario. OCD will use the results of the ATT as a tool to help assess the threat to Aquaculture and wildlife near the facility.

B. Ground Water and Surface Water Sampling and Monitoring Requirements:

- i. The owner/operator shall submit a ground water monitoring program work plan that includes a well installation and monitoring plan and a sampling and analysis plan for the monitor wells to the OCD Santa Fe Office for approval at least 3 months before system startup. The owner/operator shall conduct all water quality monitoring using low-flow purging and sampling methods where monitor well screens do not exceed 15 feet with 5 feet of screen placed above the water table.
- ii. The owner/operator shall submit a Background and Compliance Report reflecting the first 6 months of sampling conducted to the OCD within 30 days of completion of the first 6 months of sampling that includes the results of the initial sampling conducted in accordance with Permit Conditions 20 and 21 to determine background water quality conditions at

the facility and compliance with WQCC 20.6.2.3103 NMAC and Subparagraph WW of 20.6.2.7 NMAC. The report shall specify all monitoring locations, including nested wells, hydrogeology, piezometric and/or potentiometric ground water flow direction, hydraulic gradient and water quality data from all monitoring locations and down-gradient locations from potential point sources at the facility (*i.e.*, cooling tower blow-down combined with spent production water at all Class V Well injection locations). The report shall note all exceedences of the standards specified in WQCC 20.6.2.3103 NMAC or background, or if any toxic pollutant, as defined in WQCC Subparagraph WW of 20.6.2.7 NMAC, has been detected.

- iii. The owner/operator shall implement the ground water monitoring program specified in the applicable Tables in Appendix 1. The owner/operator shall monitor static water levels from monitoring locations at least quarterly to assess ground water flow direction and hydraulic gradient at the facility.
- iv. The owner/operator shall gauge and sample nested monitor well head elevations (accuracy to 0.01 ft.), recorded to establish the natural vertical hydrogeologic gradient(s) within the aquifer(s) or between reservoir(s) and to monitor for any potentially upwelling contamination to nearby down-gradient pumping domestic and commercial water supply wells.
- v. The owner/operator shall comply with the Federal Underground Injection Control requirements for Class V Wells (40 CFR 144 subpart G) and Water Quality Control Commission (WQCC) 20.6.2 NMAC injection well construction standards to protect the Underground Source of Drinking Water (USDW). The owner/operator shall immediately shut down the system and contact the OCD for further instructions if the concentration of the injection fluids exceed the greater of the standards specified in WQCC 20.6.2.3103 NMAC or background, or if any toxic pollutant, as defined in WQCC Subparagraph WW of 20.6.2.7 NMAC, is detected.
- vi. The owner/operator shall construct all monitor wells with at least 15 feet of screen with 10 feet of screen positioned below the water table (~ 60 – 70 feet bgs). The screen slot size must facilitate the collection of low turbidity samples. Low-flow ground water sampling may be used with stabilization monitoring for temperature, oxygen reduction potential (ORP) and dissolved oxygen (DO) prior to and during sample collection, if wells are constructed properly. Otherwise, the owner/operator shall purge the wells of three well volumes prior to sampling.

- vii. The owner/operator shall triangulate seasonal piezometric surface flow across the facility, including surveying all well locations (TOC and ground elevations, Mean Sea Level) to the nearest 0.01 feet. The owner/operator shall measure static water levels at least quarterly for 2 years to determine ground water flow direction. The owner/operator shall submit plots of ground water flow direction with estimates of hydraulic gradients from quarterly monitoring.
- viii. The owner/operator shall notify the Santa Fe OCD office within 72 hours of its determination that the concentration of a monitor well sample exceeds the greater of the water quality standards specified in WQCC 20.6.2.3103 NMAC or background, or if any toxic pollutant, as defined in WQCC Subparagraph WW of 20.6.2.7 NMAC, is detected.

C. Water Supply Wells Monitoring Program:

- i. The owner/operator shall sample all water supply wells in accordance with Table 3 of Appendix 1 prior to operator startup to establish background water quality conditions and thereafter at least annually to demonstrate that the water quality of the water supply wells does not exceed the greater of the standards specified in WQCC 20.6.2.3103 NMAC or background, and that no toxic pollutant, as defined in WQCC Subparagraph WW of 20.6.2.7 NMAC, is present.
- ii. The owner/operator shall determine the depth to water, ground elevation, and well elevation to an accuracy of 0.01 foot.
- iii. The owner/operator shall notify the OCD Santa Fe office within 72 hours of its determination that the concentration of the ground water sample exceeds the greater of the standards specified in WQCC 20.6.2.3103 NMAC or background, or if any toxic pollutant, as defined in WQCC Subparagraph WW of 20.6.2.7 NMAC, is detected.

D. Holding Ponds, Drainage Ditches, Pits and Ponds Monitoring Program: The owner/operator shall sample the holding ponds, drainage ditches, pits and ponds in accordance with Table 4 of Appendix 1. The owner/operator shall notify the OCD Santa Fe office within 72 hours of its determination that the concentration of a water sample taken at an unlined ditch or location listed above exceeds the greater of the standards specified in WQCC 20.6.2.3103 NMAC or background. *Note: Table 4 analytes consist of metals and general chemistry only. They do not monitor for "toxic pollutants" as defined in WQCC Subparagraph WW of 20.6.2.7 NMAC.*

E. Spent Produced Water and Cooling-Tower Blow-Down Water Monitoring Program:

- i. The owner/operator shall submit a flow diagram to the OCD Santa Fe Office that depicts where the comingled spent produced water and cooling-tower blow-down water will be sampled in-line before injection, as well as specification of injection well sample port locations used for the in-line sampling at least 30 days before system startup.
- ii. The owner/operator shall sample and analyze the comingled spent produced water and cooling-tower blow-down water daily for 10 business days at system startup, weekly for two months; and thereafter the sampling frequency shall be based on correlation that the owner/operator established with the 3D Tresar Control Monitoring System in accordance with Table 5 of Appendix 1 to this discharge permit. Injection wells shall be sampled monthly for 6 months in accordance with the analytical suite in Table 2 of Appendix 1.
- iii. The owner/operator shall inject comingled spent produced water and cooling-tower blow-down water only if it meets either the standards for ground water specified at Subparagraph WW of 20.6.2.7 NMAC and 20.6.2.3103 NMAC or the background concentration as established from the first sampling event. In-line sample ports or devices shall be installed at each injection well to enable owner/operator to perform the in-line sampling required herein, to ensure that the specified requirements for spent produced water and cooling-tower blow-down water are met.
- iv. The owner/operator shall not discharge untreated chemicals to storm water and/or "Waters of the State." Any discharge to a rip-rap area(s) is an illegal discharge. The owner/operator shall inform the OCD Santa Fe office within 72 hours of discovery of a discharge to a rip-rap basin. Discharges shall be routed to lined pits or evaporation pond areas whenever possible.
- v. The owner/operator may only discharge into "Waters of the State" in accordance with a National Pollutant Discharge Elimination System (NPDES) Permit issued by EPA Region 6. The OCD must approve the discharge concurrently with EPA. The applicant must comply with all of the Federal NPDES monitoring, treatment, and reporting requirements specified in its NPDES permit.

F. Annual Water Quality Monitoring Program Report: The owner/operator shall submit an Annual Water Quality Monitoring Program Report by January 31 of each year. The report shall include the following information:

- i. Cover sheet marked as "Annual Water Quality Monitoring Program Report, name of owner/operator, Discharge Permit Number, API number(s) of well(s), date of report and the name of the person submitting report.
- ii. Comprehensive summary of all water quality monitoring data.
- iii. Summary charts and tables depicting the constituents that have ever exceeded the standards specified in WQCC 20.6.2.3103 NMAC or background, or if any toxic pollutant, as defined in WQCC Subparagraph WW of 20.6.2.7 NMAC, has been detected.
- iv. Description and reason for any remedial or work on well(s), ponds, ditches, *etc.*
- v. Copies of the chemical analyses in accordance with Permit Condition 20.
- vi. A copy of any leaks and spills reports submitted in accordance with Permit Condition 15 above.
- vii. A "Miscellaneous" section to include any other issues that should be brought to OCD's attention.
- viii. Discharge Permit Signatory Requirements pursuant to WQCC Regulation Subsection G of 20.6.2.5101 NMAC.

21. Class V Geothermal Injection Wells and Geothermal Production or Development Wells:

A. Well Identification:

i. Class V Geothermal Injection Wells:

Well No. 42-18 (API No. 30-023-20018)
Well No. 51-07 (API No. 30-023-20020)
Well No. 53-12 (API No. 30-023-20019)

ii. Geothermal Production or Development Wells:

Well No. 13-07 (API No. 30-023-20013)

Well No. 33-07 (API No. 30-023-20014)
Well No. 45-07 (API No. 30-023-20015)
Well No. 47-07 (API No. 30-023-20016)
Well No. 53-07 (API No. 30-023-20017)

B. Well Casing and Cementing Requirements:

- i. The owner/operator shall ensure that all casing and cementing meets or exceeds the requirements of 19.14.27.8 NMAC (*Casing and Cementing Requirements*). Conductor pipe shall be run to a minimum depth of 100 feet.
- ii. Surface casing shall be to a depth of at least 100 feet greater than the deepest fresh water well within one-half mile from the well location.
- iii. Intermediate strings shall be cemented solid to surface.
- iv. Production casing shall either be cemented solid to the surface or lapped into intermediate casing, if run. If production casing is lapped into an intermediate string, the casing overlap shall be at least 50 feet. The lap shall be cemented solid and it shall be pressure tested to ensure integrity.

C. Formation Fracturing Fluids: The owner/operator shall ensure that all fluids used in the fracturing of formations shall not harm human health, wildlife and the environment. The owner/operator shall ensure that all fluids used to fracture shall be swabbed back, collected and properly disposed.

D. Class V Geothermal Injection Wells and Geothermal Production/Development Wells Monitoring Program:

- i. The owner/operator shall sample the groundwater at all injection and production/development wells prior to operator startup in accordance with Table 2 of Appendix 1 to establish background water quality conditions.
- ii. The owner/operator shall sample influent from cooling tower effluent (and not the groundwater) at all injection wells monthly for the first six months with dynamic water level (DWL) recordings in accordance with Table 2 of Appendix 1 to demonstrate that the injection fluid meets the standards specified in WQCC 20.6.2.3103 NMAC or background, and that no toxic pollutant, as defined in WQCC Subparagraph WW of 20.6.2.7 NMAC, has been detected.

- iii. If after the first six months the owner/operator demonstrates that the in-line injection well samples meet the standards specified in WQCC 20.6.2.3103 NMAC or background, and that no toxic pollutant, as defined in WQCC Subparagraph WW of 20.6.2.7 NMAC, has been detected, then the owner/operator shall then sample groundwater annually in accordance with the other annual monitoring events.
- iv. The owner/operator shall determine the depth to water, ground elevation, and well elevation to an accuracy of 0.01 foot. The owner/operator shall notify the OCD Santa Fe office within 72 hours of its determination that the concentration of the ground water sample exceeds the greater of the standards specified in WQCC 20.6.2.3103 NMAC or background, or if any toxic pollutant, as defined in WQCC Subparagraph WW of 20.6.2.7 NMAC, is detected.

E. Well Workover Operations: The owner/operator shall obtain OCD's approval prior to performing remedial work, pressure test or any other work. The owner/operator shall request approval on form G-103 "*Sundry Notice*" pursuant to 19.14.52 NMAC, with copies provided to both the OCD Artesia District II Office and the Santa Fe Office.

F. Production/Injection Method: The production/injection method that the owner/operator shall follow is as follows: High temperature (>250 °F) geothermal water shall be brought to surface from the Horquilla Formation or geothermal reservoir at approximately 3,400 feet below ground level by five (5) production or development wells (approximately 3,000 gpm per well). Hot water shall be routed in parallel and in series through 50 binary cycle (self-contained heat exchanger, evaporator and condenser) power generation units. Condensed produced or effluent water (approximately 225 °F) shall be routed directly to three (3) Class V geothermal wells and into the geothermal reservoir.

G. Well Pressure Limits: The owner/operator shall ensure that the operating surface injection and/or test pressure for each injection well measured at the wellhead shall be at a flow rate and pressure that will not adversely affect public health, the environment and the correlative rights of any future geothermal operators in the high temperature geothermal reservoir. The owner/operator shall have working pressure limiting devices or controls to prevent overpressure. The owner/operator shall report any pressure that causes damage to the system to OCD within 24 hours of discovery.

H. Mechanical Integrity Testing: At least once every five years and after any well work over, the geothermal reservoir will be isolated from the casing or tubing annulars and the casing pressure tested at a minimum of 600 psig for 30 minutes. A passing test shall be within +/- 10% of the starting test pressure. All pressure tests must be performed in accordance with the testing schedule shown below and witnessed by OCD staff unless otherwise approved.

Testing Schedule:

CY 2009: Prior to system start-up, a 30 minute casing pressure test at a minimum of 600 psig (set packer above casing shoe to isolate formation from casing), and

CY 2013: A 30 minute casing pressure test at a minimum of 600 psig (set packer above casing shoe to isolate formation from casing)

I. Capacity/Reservoir Configuration and Subsidence Survey: The owner/operator shall provide information on the size and extent of the geothermal reservoir and geologic/engineering data demonstrating that continued geothermal extraction will not cause surface subsidence, collapse or damage to property or become a threat to public health and the environment. This information shall be supplied to OCD in each annual report. OCD may require the owner/operator to perform additional well surveys, tests, etc. A subsidence monitoring section is required in the annual report and shall include well top-of-casing and ground elevation surveying (Accuracy: 0.01 ft.) before start-up and on an annual basis in order to demonstrate that there are no subsidence issues. If the owner/operator cannot demonstrate the stability of the system to the satisfaction of OCD, then OCD may require the owner/operator to shut-down, close the site and properly plug and abandoned the wells. **The owner/operator shall report any subsidence to the OCD Santa Fe office within 24 hours of discovery.**

J. Production/Injection Volumes: After placing a geothermal well on production, the owner/operator shall file in duplicate a monthly production report form G-108, with the OCD Santa Fe office by the 20th day of each month and also with the annual reports. The owner/operator shall also document the production from each well and each lease during the preceding calendar month.

K. Analysis of Injection and Geothermal Reservoir Fluids: After placing any well on injection in a geothermal resources field or area, the owner/operator shall file in duplicate a monthly injection report, form G-110, with the OCD Santa Fe office by the 20th day of each month and also with the annual report. The owner/operator shall specify the zone or formation into which injection is being made, the volume injected, the average temperature of the injected fluid and the average injection pressure at the wellhead.

L. Area of Review (AOR): The owner/operator shall report within 24 hours of discovery of any new wells, conduits or any other device that penetrates or may penetrate the injection zone within one-quarter mile from a Class V Geothermal Injection Well. *Note: AOR applies specifically to Class V Injection Wells.*

M. Annual Geothermal Temperature and Pressure Tests: The owner/operator shall test its production or development wells at least annually and submit the results to the OCD Santa Fe office on form G-111 within 30 days of the completion of the test. The owner/operator

shall record the flowing temperatures and flowing pressure tests at the wellhead for a minimum of 72 hours of continuous flow at normal producing rates. The owner/operator shall then shut in the well for 24 hours and record the shut-in pressures at the wellhead. The owner/operator shall submit the results of these tests in duplicate to the OCD Santa Fe office.

N. Loss of Mechanical Integrity: The owner/operator shall report to the OCD Santa Fe Office within 24 hours of its discovery of any failure of the casing, tubing or packer or movement of fluids outside of the injection zone. The owner/operator shall cease operations until proper repairs are made and the owner/operator receives OCD approval to re-start injection operations.

O. Bonding or Financial Assurance:

- i. Class V Geothermal Injection Wells: The owner/operator shall maintain at a minimum a cash bond (*i.e.*, Assignment of Cash Collateral Deposit or Multi-Well Cash Financial Assurance Bond Geothermal Injection) in the amount of \$50,000.00 to restore the site and/or plug and abandon wells, pursuant to OCD rules and regulations.
- ii. Geothermal Production or Development Wells: The owner/operator shall maintain at a minimum a cash bond (*i.e.*, \$10,000.00 Multi-Well (4 wells) and/or \$5,000.00 (1 well) Geothermal Plugging Bonds).

If warranted, OCD may require additional financial assurance for closure of the power plant or facility (see Permit Condition 23 below).

P. Annual Geothermal Well Report:

The owner/operator shall submit an Annual Geothermal Well Report by January 31 of each year. The report shall include the following information:

- i. Cover sheet marked as "Annual Geothermal Well Report, name of owner/operator, Discharge Permit Number, API number(s) of well(s), date of report and the name of the person submitting report.
- ii. Comprehensive summary of all geothermal well operations, including description and reason for any remedial or work on the well(s). The owner/operator shall include copies of the form G-103s that it submitted to the OCD Santa Fe office.
- iii. Production and injection volumes in accordance with Permit Condition 21.J, including a running total to be carried over each year. The owner/operator shall report the total mass produced, dry steam produced,

flow rates, temperatures and pressures, average injection pressures, temperatures, *etc.*

- iv. A copy of the chemical analyses in accordance with Permit Condition 21.K.
- v. A copy of any mechanical integrity test chart, including the type of test, (*i.e.*, EPA 5-Year casing test), date, time, *etc.*, in accordance with Permit Conditions 21.H.
- vi. A copy of the annual subsidence survey data results in accordance with Permit Condition 21.I.
- vii. Brief explanation describing deviations from normal production methods.
- viii. A copy of any leaks and spills reports submitted in accordance with Permit Condition 15 above.
- ix. A copy of analytical data results from annual groundwater monitoring including the QA/QC Laboratory Summary.
- x. An updated Area of Review (AOR) summary (WQCC Regulation 20.6.2 NMAC) when any new wells are drilled within 1/4 mile of any UIC Class V Geothermal Injection Well.
- xi. A "Miscellaneous" section to include any other issues that should be brought to the OCD's attention.
- xii. Discharge Permit Signatory Requirements pursuant to WQCC Regulation Subsection G of 20.6.2.5101 NMAC.

22. Transfer of Discharge Permit: Pursuant to WQCC Regulation Subsection H of 20.6.2.5101 NMAC, the owner/operator and new owner/operator shall provide written notice of any transfer of the permit. Both parties shall sign the notice 30 days prior to any transfer of ownership, control or possession of a facility with an approved discharge permit. In addition, the purchaser shall include a written commitment to comply with the terms and conditions of the previously approved discharge permit. OCD will not transfer brine well operations until proper bonding or financial assurance is in place and approved by the OCD. OCD reserves the right to require a modification of the permit during transfer.

23. Closure: The owner/operator shall notify OCD when operations of the facility are to be discontinued for a period in excess of six months. Prior to closure of the facility, the owner/operator shall submit for OCD approval, a closure plan including a completed C-103 form

for plugging and abandonment of the well(s). Closure and waste disposal shall be in accordance with the statutes, rules and regulations in effect at the time of closure. OCD may require additional financial assurance if surface water and/or ground water is impacted pursuant to WQCC Regulation Paragraph (11) of Subsection A of 20.6.2.3107 NMAC.

24. Certification: Los Lobos Renewable Power, L.L.C. (Owner/Operator), by the officer whose signature appears below, accepts this permit and agrees to comply with all submitted commitments, including these terms and conditions contained here. **Owner/Operator** further acknowledges that OCD may, for good cause shown, as necessary to protect fresh water, public health, safety and the environment, change the conditions and requirements of this permit administratively.

Conditions accepted by: *"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment."*

Company Name - print name above

Company Representative - print name

Company Representative - signature

Title _____

APPENDIX 1
WATER QUALITY MONITORING PROGRAM

DRAFT



Table 1
Ground Water Monitoring Program

ID*	Frequency	Media	Analytical Suite/Method	Approximate Well location
MW-1 ¹	Annual	GW	Analyze for dissolved fraction of all 20.6.2.3103 NMAC Constituents	Shallow MW (water table) located ~100' downgradient (North) of Class V IW 42-18 and associated pits (OCD)
MW-3 ¹	Annual	GW	VOCs (8260B) SVOCs (8270C)	Shallow MW (water table) located ~100' downgradient (North) of Class V IW 51-07 and associated pits (OCD)
MW-2 ¹	Annual	GW	PAHs (8310)	Shallow MW (water table) located ~100' downgradient (North) of Class V IW 53-12 and associated pits (OCD)
MW-4 ¹	Annual	GW	TPH (418.1) Metals - dissolved (6010B/6020) including Bromide, Lithium, Rubidium, and Tungsten (by approved EPA methods)	Shallow MW located ~1500' (Northwest) of DW 45-07 directly downgradient from facility (OCD)
MW-5 ¹	Annual	GW	Mercury (7470A/7471A)	Shallow MW (water table) located ~1000' upgradient (South) of the nursery greenhouses 3 & 4 to monitor background (OCD)
MW-6 ¹	Annual	GW	General Chemistry (Methods specified at 40 CFR 136.3)	Shallow MW (water table) located ~100' downgradient (North) of DW 53-07 and associated pits (OCD)
MW-7 ¹	Annual	GW	Uranium (6010B/6020), Radioactivity (E903/E904) Radon (by EPA Method or method approved by OCD)	Shallow MW (water table) located ~100' downgradient (North) of DW 13-07 and associated pits (OCD)

ID*	Frequency	Media	Analytical Suite/Method	Approximate Well location
MW-8 ¹	Annual	GW		Shallow MW (water table) located ~100' downgradient (North) of DW 33-07 and associated pits (OCD)
NW-1 ¹	Annual	GW		Similar to monitoring & sampling plan from Los Lobos.
NW-2 ¹	Annual	GW		Similar to monitoring & sampling plan from Los Lobos.
NW-3 ¹	Annual	GW		Similar to monitoring & sampling plan from Los Lobos.

Table 2
Geothermal Injection Wells and
Production/Development Wells Monitoring Program

ID*	Frequency	Media	Analytical Suite/Method	Approximate Well Location
DW 13-07 ³	Annual	GW	Analyze for dissolved fraction of all 20.6.2.3103 NMAC Constituents	As Proposed in Application
DW 33-07 ³	Annual	GW		
DW 45-07 ³	Annual	GW	VOCs (8260B)	
DW 47-07 ³	Annual	GW	SVOCs (8270C)	
DW 53-07 ³	Annual	GW	PAHs (8310)	
IW 42-18 ³	Annual	GW	TPH (418.1)	
IW 51-07 ³	Annual	GW		
IW 53-12 ³	Annual	GW	Metals - dissolved (6010B/6020) including Bromide, Lithium, Rubidium, and Tungsten (by approved EPA methods) Mercury (7470A/7471A)	
			General Chemistry (Methods specified at 40 CFR 136.3)	
			Uranium (6010B/6020), Radioactivity (E903/E904)	
			Radon (by EPA Method or method approved by OCD)	

Table 3
Water Supply Wells Monitoring Program

ID*	Frequency	Media	Analytical Suite/Method	Approximate Location
TG 52-07 ¹	Annual	GW	Analyze for dissolved fraction of all 20.6.2.3103 NMAC Constituents	Similar to monitoring & sampling plan from Los Lobos.
Americulture No. 1 Federal ¹	Annual	GW	VOCs (8260B)	
McCants No. 1 State ¹	Annual	GW	SVOCs (8270C)	
Burgett No. 1 State ¹	Annual	GW	PAHs (8310)	
Burgett Greenhouse. No. 2 ¹	Annual	GW	TPH (418.1)	
			Metals -dissolved (6010B/6020) including Bromide, Lithium, Rubidium, and Tungsten (by approved EPA methods)	
			Mercury (7470A/7471A)	
			General Chemistry (Methods specified at 40 CFR 136.3)	
			Uranium (6010B/6020),	
			Radioactivity (E903/E904)	
			Radon (by EPA Method or method approved by OCD)	

Table 4
Holding Ponds, Drainage Ditches, Pits and Ponds Monitoring Program

ID*	Frequency	Media	Analytical Suite/Method	Approximate Location
GH Holding Pond No. 1	Quarterly ⁴	SW	Metals- dissolved (6010B/6020) including Bromide, Lithium, Rubidium, and Tungsten (by approved EPA methods)	Similar to monitoring & sampling plan from Los Lobos.
GW Holding Pond No. 2	Quarterly ⁴	SW		
Drainage Ditch No. 1 (East)	Quarterly ⁴	SW	General Chemistry (Methods specified at 40 CFR 136.3)	
Retention Pond No. 1	Quarterly ⁴	SW		
Bermed Canal No. 1	Quarterly ⁴	SW		
Pit Associated with Well 13-07	Within 30 days of use	SW		
Pit Associated with DW 33-07	Within 30 days of use	SW		
Pit Associated with DW 45-07	Within 30 days of use	SW		
Pit Associated with DW 47-07	Within 30 days of use	SW		
Pit Associated with DW 53-07	Within 30 days of use	SW		
Pit Associated with IW 42-18	Within 30 days of use	SW		

ID*	Frequency	Media	Analytical Suite/Method	Approximate Location
Pit Associated with IW 51-07	Within 30 days of use	SW		
Pit Associated with IW 53-12	Within 30 days of use	SW		

Table 5
Cooling Tower Effluent Monitoring Program

ID*	Frequency	Media	Analytical Suite/Method	Approximate Location
Cooling Tower Effluent	Daily ⁵	Effluent	Metals - dissolved (6010B/6020) including Bromide, Lithium, Rubidium, and Tungsten (by approved EPA methods) General Chemistry (Methods specified at 40 CFR 136.3)	Similar to monitoring & sampling plan from Los Lobos.

DW: Development/Production Well
DWL: Dynamic Water Level
GH: Greenhouse
GW: Ground Water
IW: Injection Well
MSL: Mean Sea-Level
MW: Monitor Well
NW: Nested Well
SW: Surface Water
SWL: Static Water Level

* Quarterly Static Water Level (SWL): MSL to nearest 0.01 feet prior to sampling event

1. Monitor wells must be installed in advance of system startup and sampled.
2. Semi-Annual groundwater monitoring event must be completed no more than 30 days prior to the start of the irrigation season but no later than April 30 of each year. Monitoring must be conducted no later than 30 days after the conclusion of the irrigation season but no later than November 15 of each year.
3. One time sampling event with static water level (SWL) mean sea-level (0.01 ft. accuracy) measurements in advance of system start-up. Thereafter, monthly sampling for the first six months with dynamic water level (DWL) recording is required. After six months of monthly monitoring, the sampling shall be conducted at least annually.
4. Sample quarterly while in use. If organics are evident, sampling with analytical methods similar to MWs shall be implemented during the sampling event.
5. Daily for 10 business days at system startup; thereafter weekly for two months; thereafter based on establishing correlation with the 3D Tresar Control Monitoring System.

Note: All wells with phase-separated hydrocarbons (PSHs) must be checked at a minimum of once per month and recorded on a spreadsheet. The data must be presented in table form listing all of the impacted wells, date inspected, product thickness measured to 0.01 of a foot, and amount of product/water recovered. If PSHs are observed in a monitoring well, then appropriate steps must be taken to recover the PSHs using the best available technology.

Wttn - Kimberly

Hidalgo County HERALD

A Division of Sunrise Design, LLC

212 E. Motel Dr. Suite B

Lordsburg, NM 88045

575-542-8705

INVOICEDATE: 3/6/2009INVOICE #: 18198P.O. NUMBER : 52100-0000016117TERMS: Net 30RUN DATE: 3-6**BILL TO:**NM Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

QUANTITY	DESCRIPTION	PRICE	AMOUNT
225	Legal Notice / 1 Week - Affidavit Attached- Notice Of Public Hearing, Discharge Permit for the Lightning Dock Geothermal No.1	0.56	126.00T
It's been a pleasure working with you!		Sales Tax (7.375%)	\$9.29
		Total Invoice	\$135.29

Paul Chen
4/15/09
All to pay

A Division of Sunrise Design, LLC
212 E. Motel Dr. Suite B
Lordsburg, NM 88045
575-542-8705

STATEMENT

Payment Enclosed	
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NM Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

Date	Invoice # and Description					Amount	Balance
02/28/20...	Balance forward						0.00
03/06/20...	INV #18198. Legal Notice / 1 Week - Affidavit Attached- Notice Of Public Hearing, Discharge Permit for the Lightning Dock Geothermal No.1					135.29	135.29
						RECEIVED 200 APR 10 AM 11 23	

Hidalgo County HERALD

A Division of Sunrise Design, LLC

212 E. Motel Dr. Suite B

Lordsburg, NM 88045

575-542-8705

INVOICE

DATE: 3/6/2009

BILL TO:

NM Oil Conservation Division

1220 South St. Francis Drive

Santa Fe, NM 87505

INVOICE #: 18198

P.O. NUMBER: 52100-0000016117

TERMS: Net 30

RUN DATE: 3-6

QUANTITY	DESCRIPTION	PRICE	AMOUNT
225	Legal Notice / 1 Week - Affidavit Attached- Notice Of Public Hearing, Discharge Permit for the Lightning Dock Geothermal No.1	0.56	126.00
<i>It's been a pleasure working with you!</i>		Sales Tax (7.375%)	\$9.29
		Total Invoice	\$135.29

STATE OF NEW MEXICO

County of Bernalillo

SS

Bill Tafoya, being duly sworn, declares and says that he is Classified Advertising Manager of **The Albuquerque Journal**, and that this newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Session Laws of 1937, and that payment therefore has been made of assessed as court cost; that the notice, copy of which is hereto attached, was published in said paper in the regular daily edition, for 1 times, the first publication being on the 6 day of March, 2009, and the subsequent consecutive publications on _____, 20____.

Sworn and subscribed to before me, a Notary Public, in and for the County of Bernalillo and State of New Mexico this 6 day of March of 2009.

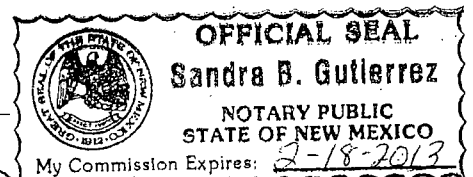
PRICE

Statement to come at end of month.

ACCOUNT NUMBER

\$ 152.44

080932



My Commission Expires: 2-18-2013

Sandra B. Gutierrez

CLA-22-A (R-1/93)

AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Hidalgo,
City of Lordsburg

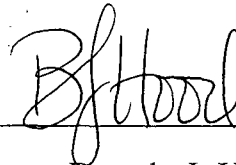
I, Brenda J. Hood, Publisher of the Hidalgo County Herald, a newspaper of record in the aforesaid city, county and state, hereby attest that the following legal notice for

NM Oil Conservation Division:

Notice of Public Hearing – Discharge Permit for the Lightning Sock Geothermal No. 1

was published for 1 consecutive week(s), from: March 6, 2009 through: March 6, 2009

Amount for this legal notice is: \$ 135.29



Brenda J. Hood - Publisher

State of New Mexico
County of Hidalgo

Subscribed and sworn to before me on April 8, 2009



Notary Public: Deborah A. Greene

My commission expires: October 29, 2012

LEGAL NOTICE

NOTICE OF PUBLIC HEARING

State of New Mexico
Energy, Minerals and Natural Resources Department,
Oil Conservation Division

Discharge permit for the Lightning Dock Geothermal No. 1 (GTHT-001)

The State of New Mexico, through its Oil Conservation Division (OCD), hereby gives notice that the division will conduct the final public hearing on **Tuesday, April 7, 2009** beginning at 9:00 a.m. at the Sheriff Administration Building (Training Room), 720 E. 2nd Street, in Lordsburg, New Mexico to consider the application for a discharge permit for the Lightning Dock Geothermal No. 1 geothermal power plant. The application was filed by Raser Power System, LLC or Los Lobos Renewable Power, L.L.C., 5152 North Edgewood Drive, Suite 375, Provo, Utah 84604.

The Lightning Dock Geothermal No. 1 (HI-01) "Binary Cycle" 15 MWe geothermal power plant (5 production/development wells & 3 Class V geothermal injection wells) will be located in the NW/4, SW/4 of Section 7, Township 25 South, Range 19 West, NMPM, Hidalgo County, New Mexico. The plant will be within the Animas River Valley approximately 10 miles south of I-10 on CR 338 (east side of Geothermal Road). Development wells are located within the SW/4; NW/4; and NE/4 of Section 7. Class V injection wells will be located within the NE/4 and NW/4 of Section 18. The operator may deviate from certain well locations and/or a development well may become injection well, and vice-versa with OCD approval and in advance of any well drilling. Development wells will produce approximately 15,000 gpm of 250-300 °F geothermal water with a total dissolved solids (TDS) concentration of approximately 1,300 mg/l based on a water sample collected at about 1,200 ft. Sampling at depth will be required before system startup to confirm TDS concentrations at depth at development and production wells. High temperature geothermal water from development wells will be routed in parallel and series into 50 portable self-contained (with heat exchanger, evaporator & condenser) binary-cycle power generation units. Approximately 325 gpm of shallow low temperature geothermal reservoir or makeup water with a TDS concentration of approximately 300 mg/l will be mixed with cooling tower chemical

tion pond during operation or cessation of operations and in the case of emergencies. Each Class V well will have a maximum injection rate of between 4,000 to 5,000 gpm at an average pressure of about 75 psig. The flow rate of each development or Class V well may be subject to the correlative rights of any future geothermal operators in the high temperature geothermal reservoir. Lined evaporation ponds at the surface will temporarily store any excess development or well test water for injection back into the high temperature geothermal reservoir. Ground water most likely to be affected by a spill, leak, or accidental discharge to the surface is at a depth of approximately 60 feet with a TDS of approximately 300 mg/l. The discharge plan addresses well construction, operation, monitoring, testing of the wells, associated surface facilities, and provides a contingency plan in the event of accidental spills, leaks and other accidental discharges in order to protect fresh water.

The division will accept comments and statements of interest regarding this application and will create a facility-specific mailing list for persons who wish to receive future notices. Persons interested in requesting further information, submitting comments or requesting to be on a facility-specific mailing list for future notices may contact Mr. Glenn von Gonten, Team Leader of the Oil Conservation Division, at 1220 S. St. Francis Drive, Santa Fe, NM 87505, (505) 476-3488. The discharge permit application and draft permit may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday. The discharge permit application and draft permit are also posted on the division's web site: <http://www.emnrd.state.nm.us/ocd/ENV-DraftPublicEtc.htm>.

The rule governing public participation at the hearing is 20.6.2.3110 NMAC. Any person who wishes to present technical evidence at the hearing must, at least 10 days before the hearing, file with the division and serve on the applicant a statement of intent to present evidence. The filing may be mailed to the division at the above address, or faxed to the division at (505) 476-3462, attention Glenn von Gonten. The statement must include the name of the person filing the statement; indicate whether the person supports or opposes the proposed discharge plan proposal; give the name of each witness; esti-

dence may present a general non-technical statement in support of or in opposition to the proposed discharge plan; At the hearing, all persons shall be given a reasonable chance to submit data, views or arguments orally or in writing and to examine witnesses testifying at the hearing.

Unless otherwise allowed by the hearing officer, testimony shall be presented in the following order: testimony by and examination of the applicant supporting the facts relied upon to justify the proposed discharge plan and demonstrate that it meets the requirements of the regulations; testimony by and examination of technical witnesses supporting or opposing approval, or supporting or opposing conditional approval, in any reasonable order; testimony by the general public; and rebuttal testimony, if appropriate.

The hearing officer shall issue a report within thirty days after the close of the hearing record. The report shall be served on the applicant, the division, and all persons who request copies in advance in writing. The report will also be available for public inspection at the division's office in Santa Fe and at the Artesia district office, 1301 West Grand Ave., Artesia, NM 88210. The director shall issue a decision in the matter no later than thirty days after receipt of the hearing report. The decision shall be served on the applicant, the division, and all persons who request copies in writing. The decision will also be available for public inspection at the division's office in Santa Fe and at the Artesia district office and on the division's website.

If you are a person with a disability who is in need of a reader, amplifier, qualified sign language interpreter, or any other form of auxiliary aid or service to attend or participate in the hearing, please contact Mr. Glenn von Gonten at (505) 476-3488 or through the New Mexico Relay Network (1-800-659-1779) at least ten days prior to the hearing, so the division can make reasonable accommodations. Para obtener más información sobre esta solicitud en español, sírvase comunicarse por favor: New Mexico Energy, Minerals and Natural Resources Department (Depto. Del Energia, Minerals y Recursos Naturales de Nuevo México), Oil Conservation Division (Depto. Conservación Del Petróleo), 1220 South St. Francis Drive, Santa Fe, New Mexico 87505 (Contacto: Dor-

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torily store any excess development or well test water for injection back into the high temperature geothermal reservoir. Ground water most likely to be affected by a spill, leak, or accidental discharge to the surface is at a depth of approximately 60 feet with a TDS of approximately 300 mg/l. The discharge plan addresses well construction, operation, monitoring, testing of the wells, associated surface facilities, and provides a contingency plan in the event of accidental spills, leaks and other accidental discharges in order to protect fresh water.

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plicant supporting the facts relied upon to justify the proposed discharge plan and demonstrate that it meets the requirements of the regulations; testimony by and examination of technical witnesses supporting or opposing approval, or supporting or opposing conditional approval, in any reasonable order; testimony by the general public; and rebuttal testimony, if appropriate.

The hearing officer shall issue a report within thirty days after the close of the hearing record. The report shall be served on the applicant, the division, and all persons who request copies in advance in writing. The report will also be available for public inspection at the division's office in Santa Fe and at the Artesia district office, 1301 West Grand Ave., Artesia, NM 88210. The director shall issue a decision in the matter no later than thirty days after receipt of the hearing report. The decision shall be served on the applicant, the division, and all persons who request copies in writing. The decision will also be available for public inspection at the division's office in Santa Fe and at the Artesia district office and on the division's website.

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GIVEN under the Seal of New Mexico Oil Conservation Division at Santa Fe, New Mexico, on this 3rd Day of March 2009.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION
Mark Fesmire, Director
m6c

Albuquerque Publishing Company

P.O. BOX 95777 Albuquerque, NM 87199-5777

PAGE # 001

ADVERTISING INVOICE/STATEMENT

ADVERTISING INVOICE STATEMENT									
BILLING PERIOD		BILLED ACCOUNT NUMBER		ADVERTISER/CLIENT NUMBER		ADVERTISER/CLIENT NAME			
03/01/09 03/31/09		C80932		C80932		N M DEPT OF ENERGY, MINERALS			
DATE	NEWSPAPER REFERENCE			DESCRIPTION-OTHER COMMENTS/CHARGES		SAU SIZE	TIMES RUN	AMOUNT	
	PUB	PROD	CLS	START DATE	CONTRACT LINEAGE	BILLED UNITS	RATE		
				BALANCE FORWARD				.00	
03/05	54056983501			DURAN-SAEN/ STATE OF NEW MEXI		1.0X 236.00L		132.16	
	JD DGLE	0000				236.00L	0.56		
				TAX				8.92	
				NET INVOICE AMOUNT				141.08	
03/06	T540791401			521-000083/NOTICE OF PUBLIC HE		1.0X 255.00L	1	142.80	
	JD LGLE	0000		03/06		255.0L	0.56		
				TAX				9.64	
				NET INVOICE AMOUNT				152.44	
								TOTAL DUE 293.52	
	PREVIOUS			AMOUNT OWED:		.00			
	NEW CHARGES			THIS PERIOD:		274.96			
	NEW TAXES			THIS PERIOD:		18.56			
	CASH			THIS PERIOD:		.00			
	DEBIT ADJUSTMENTS			THIS PERIOD:		.00			
	CREDIT ADJUSTMENTS			THIS PERIOD:		.00			

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STATEMENT OF ACCOUNT

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1-30 DAYS	31-60 DAYS	61-90 DAYS	OVER 90 DAYS	UNAPPLIED AMOUNT	TOTAL AMOUNT DUE
\$293.52	\$0.00	\$0.00	\$0.00	.00	\$293.52

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OIL CONSERVATION DIV
1220 S ST FRANCIS DR
SANTA FE NM 87505

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NOTICE OF PUBLIC HEARING

State of New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division

Discharge permit for the Lightning Dock Geothermal No. 1 (GTHP-001)

The State of New Mexico, through its Oil Conservation Division (OCD), hereby gives notice that the division will conduct the final public hearing on Tuesday, April 7, 2009 beginning at 9:00 a.m. at the Sheriff Administration Building (Training Room), 720 E. 2nd Street, in Lordsburg, New Mexico to consider the application for a discharge permit for the Lightning Dock Geothermal No. 1 geothermal power plant. The application was filed by Raser Power System, LLC or Los Lobos Renewable Power, L.L.C., 5152 North Edgewood Drive, Suite 375, Provo, Utah 84604.

The Lightning Dock Geothermal No. 1 (H-01) "Binary Cycle" 15 MWe geothermal power plant (5 production/development wells & 3 Class V geothermal injection wells) will be located in the NW/4, SW/4 of Section 7, Township 25 South, Range 19 West, NMPM, Hidalgo County, New Mexico. The plant will be within the Animas River Valley approximately 10 miles south of I-10 on CR 338 (east side of Geothermal Road). Development wells are located within the SW/4, NW/4, and NE/4 of Section 7. Class V injection wells will be located within the NE/4 and NW/4 of Section 18. The operator may deviate from certain well locations and/or a development well may become injection well, and vice-versa with OCD approval and in advance of any well drilling. Development wells will produce approximately 15,000 gpm of 250-300 °F geothermal water with a total dissolved solids (TDS) concentration of approximately 1,300 mg/l based on a water sample collected at about 1,200 ft. Sampling at depth will be required before system startup to confirm TDS concentrations at depth at development and production wells. High temperature geothermal water from development wells will be routed in parallel and series into 50 portable self-contained (with heat exchanger, evaporator, & condenser) binary-cycle power generation units. Approximately 325 gpm of shallow low temperature geothermal reservoir or makeup water with a TDS concentration of approximately 300 mg/l will be mixed with cooling tower chemical additives and cycled through the cooling tower unit. Approximately 390 gpm of cooling tower blow-down effluent (180-225 F) will be commingled with a high volume of spent effluent to be injected into the Class V injection wells with the exception of effluent that is routed back into a lined evaporation pond during operation or cessation of operations and in the case of emergencies. Each Class V well will have a maximum injection rate of between 4,000 to 5,000 gpm at an average pressure of about 75 psig. The flow rate of each development or Class V well may be subject to the correlative rights of any future geothermal operators in the high temperature geothermal reservoir. Lined evaporation ponds at the surface will temporarily store any excess development or well test water for injection back into the high temperature geothermal reservoir. Ground water most likely to be affected by a spill, leak, or accidental discharge to the surface is at a depth of approximately 60 feet with a TDS of approximately 300 mg/l. The discharge plan addresses well construction, operation, monitoring, testing of the wells, associated surface facilities, and provides a contingency plan in the event of accidental spills, leaks and other accidental discharges in order to protect fresh water.

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The hearing officer shall issue a report within thirty days after the close of the hearing record. The report shall be served on the applicant, the division, and all persons who request copies in advance in writing. The report will also be available for public inspection at the division's office in Santa Fe and at the Artesia district office, 1301 West Grand Ave., Artesia, NM 88210. The director shall issue a decision in the matter no later than thirty days after receipt of the hearing report. The decision shall be served on the applicant, the division, and all persons who request copies in writing. The decision will also be available for public inspection at the division's office in Santa Fe and at the Artesia district office and on the division's website.

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Para obtener mas informacion: so-

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GIVEN under the Seal of New Mexico Oil Conservation Division at Santa Fe, New Mexico, on this 3rd Day of March 2009.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

Mark Fesmire, Director
Journal: March 6, 2009

NOTARIAL PUBLIC STATE OF NEW MEXICO
My Comm. Expires: 12/31/2011
Notary Public for the State of New Mexico
My Comm. No. 123456789

New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson
Governor

Joanna Prukop
Cabinet Secretary
Reese Fullerton
Deputy Cabinet Secretary

Mark Fesmire
Division Director
Oil Conservation Division



March 11, 2009

Mrs. Rebecca G. Perry-Piper
135 Rincon Valverde
Ponderosa, New Mexico 87044-9500

Re: Lightning Dock Geothermal No. HI-01 Discharge Permit Application Hard Copy Request (GTHT-001)

Dear Mrs. Perry-Piper:

The New Mexico Oil Conservation Division (NMOCD) is in receipt of your letter dated March 9, 2009. In your letter you are requesting that a hard-copy of the application, which is extensive, be mailed to you.

Unfortunately, the NMOCD does not provide copier service for public information requests. The NMOCD will gladly schedule a date and time (between 9 a.m. and 4:00 p.m. M-F) that you may physically come to the Energy, Minerals & Natural Resources Department located at 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, to view the file. You may also use our copier to make copies at 0.25 cents per page for your personal use.

The information you are requesting is also available on the Internet at <http://ocdimage.emnrd.state.nm.us/imaging/AEOrderFileView.aspx?appNo=pCJC0813635742> under the "Permits, Renewal & Mods" thumbnail.

I have added your contact information to the NMOCD mail list for the above facility, but there may soon be no more activity associated with the facility. In case you have not heard, the NMOCD will be conducting a public hearing (see attached notice of public hearing) on April 7, 2009 in Lordsburg, New Mexico.

If there are any questions regarding this matter, please do not hesitate to contact me at (505) 476-3490 or carlj.chavez@state.nm.us. Thank you.

Sincerely,

Carl Chavez
Environmental Engineer

CC/cc

xc: OCD District Office



NOTICE OF PUBLIC HEARING

State of New Mexico
Energy, Minerals and Natural Resources Department,
Oil Conservation Division

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STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

S E A L

Mark Fesmire, Director

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March 9, 2009
135 Rincon Valverde
Ponderosa, NM
87044-9500

Mr. von Goren
Team Leader
Energy, Minerals and Natural
Resources Department
Oil Conservation Division
1220 S. St Francis Drive
Santa Fe, NM
87505

Dear Team Leader von Goren,

Please surface-mail me hard-copy version of the application for discharge permit for the Lightning Dock Geothermal No.1 geothermal power plant filed by Raser Power System LLC/ Los Lobos Renewable Power LLC in a timely manner so that I might submit comment on it by surface-mail before April 2, 2009.

I am requesting that my name and mailing address be placed on a facility-specific mailing list for Lightning Dock Geothermal No.1 of, presently, Raser Power System LLC/ Los

Page 2 of 2
(no copy retained or
sent out.)

March 9, 2009
Lobos Renewable Power LLC
further notices on said facility.
Send to and list:

Rebecca G. Perry-Piper
135 Rincon Valverde
Ponderosa, NM
87044-9500

Respectfully,

Rebecca G. Perry-Piper
Rebecca G. Perry-Piper

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OIL CONSERVATION DIVISION

S E A L

Mark Fesmire, Director