THE STATE OF NEVADA

PERMIT TO APPROPRIATE WATER

Name of applicant:	**NEVADA GEOTHERMAL POWER COMPANY**
Source:	**UNDERGROUND**
Basin:	**PUMPERNICKEL VALLEY**
Manner of Use:	**INDUSTRIAL**
Period of Use:	**January 1st to December 31st**
Priority Date:	**10/30/2008**

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APPROVAL OF STATE ENGINEER

This is to certify that I have examined the foregoing application, and do hereby grant the same, subject to the following limitations and conditions:

This permit is issued subject to existing rights. It is understood that the amount of water herein granted is only a temporary allowance and that the final water right obtained under this permit will be dependent upon the amount of water actually placed to beneficial use. It is also understood that this right must allow for a reasonable lowering of the static water level. This well shall be equipped with a two (2) inch opening for measuring depth to water. If the well is flowing, a valve must be installed and maintained to prevent waste. A totalizing meter must be installed and maintained in the discharge pipeline near the point of diversion and accurate measurements must be kept of water placed to beneficial use. The totalizing meter must be installed before any use of water begins or before the Proof of Completion of Work is filed.

This permit does not extend the permittee the right of ingress and egress on public, private or corporate lands.

The total combined duty of water under Permits 77546, 77547, 77548 and 77549 shall not exceed 2,500 acre-feet annually.

The issuance of this permit does not waive the requirements that the permit holder obtain other permits from State, Federal and local agencies.

This project is a renewable energy project as defined in NRS 701.080. An annual report that documents the amount of groundwater diverted and beneficially used under permits 77546, 77547, 77548 and 77549 shall be filed not later than January 31st of each year. A groundwater monitoring plan shall be submitted for approval by the State Engineer and shall be implemented prior to development of groundwater under these permits. The groundwater monitoring plan shall be sufficient to establish the magnitude and lateral extent of water level impacts that may result from pumpage under these permits. If groundwater monitoring data indicate an unreasonable impact upon senior water rights, diversion of water under these permits may be curtailed or mitigation may be required.

(Continued on Page 2)

A groundwater management plan shall be implemented to the extent possible such that any excess water not consumed by the power plant operation will be returned to the groundwater basin via injection wells or infiltration galleries.

The point of diversion and place of use are as described on the submitted application to support this permit.

The amount of water to be appropriated shall be limited to the amount which can be applied to beneficial use, **and not to exceed 3.34 cubic feet per second or 2418 acre-feet annually.**

Work must be prosecuted with reasonable diligence and proof of completion of work shall be filed on or before: **December 29 2013**

Water must be placed to beneficial use and proof of the application of water to beneficial use shall be filed on or before: **December 29 2015**

Map in support of proof of beneficial use shall be filed on or before: **N/A**

IN TESTIMONY WHEREOF, I, JASON KING, P.E.,

State Engineer of Nevada, have hereunto set my hand and the seal of my office, this 29th day of **December,** A.D. **2010**

J. King P.E.

State Engineer

Completion of work filed _____

Proof of beneficial use filed _____

Cultural map filed _____

Certificate No. _____ Issued _____

77548

Amended Application No. ~~77578~~

APPLICATION FOR PERMIT TO APPROPRIATE THE PUBLIC WATERS OF THE STATE OF NEVADA

THIS SPACE FOR OFFICE USE ONLY

Date of filing in State Engineer's Office OCT 30 2008

Returned to applicant for correction _____

Corrected application filed _____ Map filed NOV 05 2008 under 77546

The applicant Nevada Geothermal Power Company

409 Granville St., Suite 900 (Street Address or P.O. Box) of Vancouver (City or Town)

BC Canada V6C1T2 (State and Zip Code) hereby make(s) application for permission to appropriate the public waters of the State of Nevada, as hereinafter stated. (If applicant is a corporation, give date and place of incorporation; if a copartnership or association give names of members.)

Domestic Corporation in Nevada; File Date: 10/3/86; Corp Number: C6971-1986

1. The source of water is Underground (Name of stream, lake, underground, spring or other sources.)
2. The amount of water applied for is 3.34 cfs (One second foot equals 448.83 gallons per minute.) second feet.
   (a) If stored in reservoir give number of acre-feet _____
3. The water to be used for Industrial (Irrigation, power, mining, commercial, domestic or other use. Must limit to one major use.)
4. If use is for:
   (a) Irrigation, state number of acres to be irrigated _____
   (b) Stockwater, state number and kind of animals _____
   (c) Other use (describe fully in No. 12) _____
   (d) Power:
      (1) Horsepower developed _____
      (2) Point of return of water to stream _____

5. The water is to be diverted from its source at the following point: (Describe as being within a 40-acre subdivision of public survey, and by course and distance to a found section corner. If on unsurveyed land, it should be so stated.)

SW¼ SW¼ Section 9, T.33N., R.40E. M.D.B.&M or at a point which from which the SW Cor. of said Section 9 bears S. 56° 44' 02" W. a distance of 1,134.83 feet. (Well #3)

6. Place of use: (Describe by legal subdivision. If on unsurveyed land, it should be so stated.)

Sections 3-5 & 8-10 in T.33N., R.40E. M.D.B.&M. & Sections 27-28 & 32-34 in T.34N., R.40E. M.D.B.&M.

7. Use will begin about January 1 (Month and Day) and end about December 31 (Month and Day) of each year.

8. Description of proposed works. (Under the provisions of NRS 535.010 you may be required to submit plans and specifications of your diversion or storage works.) (State manner in which water is to be diverted, i.e. diversion structure, ditches and flumes, drilled well with pump and motor, etc.)

Proposed wells, pumps, distribution pipeline & storage tank(s).

9. Estimated cost of works: $75 Million

10. Estimated time required to construct works: Three Years
(If well completed, describe works.)

11. Estimated time required to complete the application of water to beneficial use: Five years

12. Provide a detailed description of the proposed project and its water usage (use attachments if necessary):
(Failure to provide a detailed description may cause a delay in processing.)

See Attachment "B" & Table 1 for cooling tower water demand calculations & justification. Water rights are requested under NRS 534.120(2) as a preferred use & renewable energy under NRS 701.080. Nevada Geothermal Power is requesting a total combined duty not to exceed 2,500 afa to be developed from a combination of up to four wells shown on the supporting map as wells #1-4.

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STATE ENGINEER'S OFFICE

13. Miscellaneous remarks:

See Attachment "A" for further information

chris@gbis.com
E-mail Address

(775) 323-1804
Phone No

By Chris C. Mahannah, PE, Agent
Type or print name clearly

Signature, applicant or agent

Mahannah & Associates, LLC
Company Name

P.O. Box 2494
Street Address or P O Box

Reno, NV 89505
City, State, Zip Code

APPLICATION MUST BE SIGNED BY THE APPLICANT OR AGENT

$250 FILING FEE AND SUPPORTING MAP MUST ACCOMPANY APPLICATION

Revised 11-07

Protested: December 4, 2008, by Pershing County Water Conservation District of Nevada
Pro. Overruled 10/18/10 See Ruling #6064

ATTACHMENT "A"

Renewable Portfolio Standard: In 1997 Nevada passed a Renewable Portfolio Standard as part of their 1997 Electric Restructuring Legislation (AB 366). It required any electric providers in the state to acquire actual renewable electric generation or purchase renewable energy credits so that each utility had 1 percent of total consumption in renewables. On June 8, 2001, Nevada Governor Kenny Guinn signed SB 372, at the time the country's most aggressive renewable portfolio standard. In June 2005, the Nevada legislature passed a bill during a special legislative session that modified the Nevada RPS (Assembly Bill 03). The bill extends the deadline and raised the requirements of the RPS to 20 percent of sales by 2015. As of April 2005, both Sierra Pacific Power and Nevada Power have yet to meet all of the energy requirements of the Nevada RPS. The Nevada Geothermal Power Pumpernickel Valley Project will fulfill a portion of the State- mandated RPS.

State and County Economic Benefit: NGP's Pumpernickel Valley Project will bring significant economic benefit to the State and Humboldt County. Development and construction of the project will create many temporary jobs during the next 2 years and plant operations will require 15+ permanent fulltime skilled employees. Construction and operation will increase sales tax revenues and the project will be subject to net proceeds of mines and property taxes. Additionally, under new federal legislation the State and County will receive 50% and 25% respectively of royalties collected from inclusion of federal leases in the participating area of the geothermal resource. The plant and attendant transmission facilities are easily accessible and supported from existing County infrastructure and will not require significant additions to County resources.

ATTACHMENT "B"

The geothermal resource at Pumpernickel Valley has not been fully defined yet, but Nevada Geothermal Power Company preliminarily projects that a power plant with a capability of producing about 25 Megawatts is likely.

The attached Table 1 shows the projected calculation of the water consumption for summer conditions (maximum makeup flow requirement), winter conditions (minimum makeup flow requirement) and average conditions that are used to estimate annual water usage. The calculation shows that the water usage could, at this time, are reasonably expected to be about 2,500 acre-feet per year for the Pumpernickel Valley geothermal facility when it is fully operational.

Table 1. Pumpernickel Valley Cooling Tower Performance

Freshwater Requirements Calculation			
Parameter	Summer	Average	Winter
Dry Bulb Temperature [°F]	90	51	28
Wet Bulb Temperature [°F]	58	41	26
Inlet Relative Humidity [%]	13.6%	44.2%	79%
Air Flow/CT Cell [ACFM]*	1,400,000	1,400,000	1,400,000
Total Heat Duty [M-Btu/hr]	1,017.8	1,037.5	1,054.6
Inlet Air Enthalpy [Btu/lb]	26.8	16.7	9.8
Outlet Air Enthalpy [Btu/lb]	48.855	37.49	30.015
Outlet Relative Humidity [%]	100%	100%	100%
CW Mass Evaporated [gpm]	2,045	1,470	1,150
CW Make Up [gpm]	2,556	1,575	1,438
CW Blow Down [gpm]	511	105	288
Concentration Cycles	5.0	15.0	5.0
Plant Capacity Factor		98%	
Annual Evaporation (AF/Y)		2,324	
Annual Blowdown (AF/Y)		166	
Total Water Requirement (AF/Y)		**2,490**	