

IN THE OFFICE OF THE STATE ENGINEER  
OF THE STATE OF NEVADA

IN THE MATTER OF APPLICATIONS 57238 )  
THROUGH 57245, INCLUSIVE, FILED BY )  
BRADY POWER PARTNERS TO CHANGE )  
UNDERGROUND WATER AND APPLICATIONS )  
57286 THROUGH 57293, INCLUSIVE, TO )  
APPROPRIATE UNDERGROUND WATER WITHIN )  
THE BRADY HOT SPRINGS AREA, )  
CHURCHILL COUNTY, NEVADA. )

RULING  
# 3894

GENERAL

I.

Applications 57238 through 57245 inclusive were filed on February 26, 1992, by Brady Power Partners (hereinafter, BPP) to change the point of diversion and place of use of underground water previously appropriated by permits 47166, 48675, 48676, 49944, 49945, 49946, 51592 and 51593. The applications propose a total diversion rate, when computed on an annual basis, of 27.03 cubic feet per second (cfs), but limited to 19,572 acre-feet annually (afa). These diversion values are calculated from the annual volume limitations of the permits (in acre-feet) to obtain a flow rate in cfs. These permits were approved to utilize the underground water for geothermal power generation and allow for a total consumptive use of the water at the surface (production minus injection) of 5.91 cfs, or 2,651 gpm or 4,276 afa. Applications 57238 through 57245 propose to change only the locations of the production wells to more accurately reflect the actual well field and to correct the place of use to accurately reflect the boundaries of the power plant. The total diversion rate and the total consumption of water are proposed to remain unchanged.<sup>1</sup>

II.

Applications 57286 through 57293 inclusive were filed on March 12, 1992, by Brady Power Partners to appropriate 5.0 cfs each (2,240 gpm) from eight (8) additional wells for geothermal power

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<sup>1</sup> Applications 57238 through 57245 are public record in the Office of the State Engineer

production, but state clearly that no net annual increase is requested above the already permitted 19,572 afa withdrawal rate from the entire well field. The purpose of the new applications is to provide for the flexibility to produce from up to 8 additional wells without increasing the overall annual withdrawal.<sup>2</sup>

III.

Applications 57238 through 57245, inclusive, and 57286 through 57293, inclusive, were timely protested pursuant to NRS 533.365 by Geothermal Food Processors (Gilroy Foods, Inc), (hereinafter, GFP). The protests request the applications be denied on the grounds that:

"...concentration of sixteen (16) production wells will have an unreasonable and adverse impact on (GFP's) senior rights and be detrimental to the well-established utilization of its prior rights. This unreasonable impact is evidenced by the fact that BPP's test pumping at approximately 6,100 [gallons] per minute (13.6 CFS), which is approximately 40 percent of its allowed pumping rate, caused a dramatic drop in the temperature and fluid level in (GFP's) production well."

The protest further contends the

"original plan ...consisted of eight production wells located in such a manner that there was less potential of ... negatively impacting the Brady's Hot Springs Geothermal Resource and affecting (GFP's) production wells,... This is simply not possible with the concentration of sixteen (16) production wells over a small area of the resource."<sup>3</sup>

FINDINGS OF FACT

I.

The State Engineer and the Nevada Department of Minerals held joint hearings pursuant to NRS 533.365 and NRS 534A.070(4) on two separate occasions beginning October 28, 1985, and again beginning

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<sup>2</sup> Applications 57286 through 57293 are public record in the Office of the State Engineer

<sup>3</sup> The protests are public record in the Office of the State Engineer, and are here cited in part only for brevity.

April 17, 1986, wherein a substantial record of evidence and testimony in the matter of GFP's protest of BPP's predecessor's applications for development of the same geothermal reservoir for the same power generation purposes. In both instances the State Engineer ruled in favor of the applicant and the permits were issued for the significant portion of the total flow rate and consumptive use rate now proposed to be changed and/or augmented by the applications in the instant case. The total flow rate and consumptive use rate is derived by summing the amounts granted in the contested applications and the amounts allowed under permits 48675 and 48676, which were granted without protest.<sup>4</sup>

II.

On review of the previous decisions regarding the base permits, the State Engineer's Findings of Fact placed great weight on the evidence and testimony of the applicant's expert witnesses. These individuals provide assessment of the capabilities of geothermal resources world-wide to independently verify that this geothermal reservoir will in all probability sustain the proposed development. The State Engineer agreed that the reservoir at Brady was capable of producing the desired flow rates and consumption of fluid without adversely impacting the senior appropriator's rights to utilize the same reservoir, to the extent the holder of the existing appropriations cannot be satisfied.<sup>5</sup> The State Engineer finds no net change in the total diversion rates and/or total consumptive use rates contemplated in the subject applications, and the State Engineer therefore need not make a finding on unappropriated water. The State Engineer does find however that, since the proposed well field is further away from the senior

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<sup>4</sup> The permit files are public record, and refer to the State Engineer Ruling No. 3294 dated December 20, 1985 and Ruling No. 3467 dated October 22, 1987. Over 2,000 pages of transcript and over 150 exhibits were received in evidence in the hearings held prior to these decisions.

<sup>5</sup> See State Engineer Ruling #3467 dated October 22, 1987.

appropriator's wells, (versus the locations that were the subject of the previous rulings),<sup>6</sup> that the drawdown will be less than previously allowed by the existing permits. The State Engineer further finds that the approval of the subject applications will not adversely effect GFP's prior rights.

III.

Based on previous testimony, the State Engineer is confident the impacts (water level declines) realized at GFP as a result of the development by BPP will not be unreasonable, and in fact are inevitable.<sup>7</sup> The State Engineer finds no evidence to substantiate the drop in reservoir temperature that GFP claims has occurred. In fact, the 1981 testing that was done for GFP clearly showed an increase in the temperature of the produced fluid at GFP's well (Grace No. 1), and the same geothermal reservoir engineers attributed that to recharge of hotter water from the Hot Springs Fault.<sup>8</sup> GFP claims further that the 'concentration' of wells will cause adverse impacts at GFP. The State Engineer finds, based on the entire record developed in the matter, that the production and injection of geothermal fluids by BPP, at the same total rates and with the well field more distant from GFP than before, will not cause an unreasonable water level drop at GFP such that their prior rights cannot be satisfied.

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<sup>6</sup> The well locations are set forth both in the subject permits and applications, and in the supporting maps, all of which are public record in the Office of the State Engineer.

<sup>7</sup> See Transcript of Proceedings of the Joint Hearing before the State Engineer and the Nevada Department of Minerals, July 1, 1986, p. 90, line 9 to p. 94, line 4; also see Transcript July 2, 1986, p. 50, line 15 to p. 54, line 11; p. 57, line 10 to p. 58, line 16; p. 81, line 11 to line 15; p. 122, line 15 to p. 124, line 2;

<sup>8</sup> Transcript, July 2, 1986, p. 51, line 25 to p. 52, line 15. Also see Exhibit P-3, received in evidence at the hearing.

IV.

If impacts significant enough to interfere with GFP's ability to operate do occur, GFP and BPP have in place certain agreements that address triggering mechanisms and remedies to satisfy GFP's prior rights. The agreements call for BPP to supply sufficient water of sufficient temperature so that GFP can continue their operation as usual. These agreements are on record in the State Engineer's office. A specific term of the agreement requests that the State Engineer make any permits issued to GFP or BPP subject to the terms and conditions of the agreements. The State Engineer finds that these executed agreements are sufficient to protect the prior rights of GFP.<sup>9</sup>

CONCLUSIONS

I.

The State Engineer has jurisdiction of the parties and the subject matter of this action.<sup>10</sup>

II.

The State Engineer shall approve an application submitted in proper form which contemplates the application of water to beneficial use unless:<sup>11</sup>

1. There is no unappropriated water in the proposed source of supply,
2. The proposed use conflicts with existing rights, or
3. The proposed use threatens to prove detrimental to the public interest.

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<sup>9</sup> See agreements dated December 18, 1987 and February 1, 1991, filed in permit file 49944, in the Office of the State Engineer.

<sup>10</sup>NRS Chapters 533, 534 and 534A.

<sup>11</sup>NRS 533.370.

III.

The protestant Gilroy Foods, Inc., (GFP) holds existing rights and is first in time by virtue of the earlier filing dates on their seven permits.<sup>12</sup>

IV.

NRS 534.110(4) provides, as an express condition of each appropriation of groundwater acquired pursuant to Chapters 533 and 534, that the right of the appropriator shall relate to a specific quantity of water and that such right must allow for a reasonable lowering of the static water level at the appropriator's point of diversion. The State Engineer concludes that GFP's claim of unreasonable interference caused by new wells producing from the field is not supported in this record.

V.

NRS 534.110(5) authorizes the State Engineer to issue permits in (designated) areas to applicants later in time, even when such later appropriations may cause the water level to be lowered at the point of diversion of the prior appropriator, so long as the rights of holders of existing appropriations can be satisfied under such express conditions. The proposed new appropriations and changes in existing appropriations will not cause an unreasonable lowering of the static water table in the senior appropriators points of diversion such that the rights of the holders of the senior appropriations cannot be satisfied.

VI.

The issuance of the subject permits, with proper monitoring requirements through development stages, up to and including full scale operations will not tend to conflict with existing rights to the extent they cannot be satisfied.

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<sup>12</sup>NRS 534.080(3).

VII.

The State Engineer concludes that multiple use of the same geothermal reservoir, as long as prior rights are protected, is in the public interest.

RULING

The protests to the granting of permits under Applications 57238 through 57245, inclusive, and 57286 through 57293, inclusive, are herewith overruled based on substantial evidence that the proposed use will not conflict with existing rights nor prove detrimental to the public interest. Permits will be granted subject to existing rights and further subject to the following conditions:

1. A written status report on the implementation of a reservoir monitoring program must be submitted for approval within 60 days of this date.
2. A clear, definitive injection program and timetable for implementation must be submitted within thirty (30) days of this date.
3. The State Engineer retains the authority to regulate the consumption of thermal water if he deems it necessary to protect existing rights and the resource.
4. Payment of the statutory permit fees.

Respectfully submitted,

  
R. MICHAEL TURNIPSEED, P.E.  
State Engineer

RMT/TKG/bk

Dated this 26th day of  
June, 1992.