

Brooks, David K., EMNRD

From: Damon Seawright [damon@vtc.net]
Sent: Friday, April 10, 2009 10:26 PM
To: Altomare, Mikal, EMNRD; Brooks, David K., EMNRD; 'Ocean Munds-Dry'; damon@americulture.com; Jeffrey Harris
Cc: Chavez, Carl J, EMNRD; Sanchez, Daniel J., EMNRD; Fesmire, Mark, EMNRD; VonGonten, Glenn, EMNRD; 'Gary Seawright'
Subject: RE: Case No. 14246- Corrected/Clarified Draft Discharge Permit regarding Raser/Los Lobos - GT001
Attachments: Raser GT-001-4-10-2009 Permit Requirements.pdf

Ms. Altomare,

Please find attached a post hearing submission by AmeriCulture.

Sincerely,

Damon Seawright
AmeriCulture, Inc.

From: Altomare, Mikal, EMNRD [mailto:Mikal.Altomare@state.nm.us]
Sent: Friday, April 10, 2009 10:37 AM
To: Brooks, David K., EMNRD; Ocean Munds-Dry; damon@vtc.net; damon@americulture.com
Cc: Chavez, Carl J, EMNRD; Sanchez, Daniel J., EMNRD; Fesmire, Mark, EMNRD; VonGonten, Glenn, EMNRD
Subject: Case No. 14246- Corrected/Clarified Draft Discharge Permit regarding Raser/Los Lobos - GT001

Examiner Brooks, Ms. Munds-Dry and Mr. Seawright,

Please find attached (in PDF format) the following documents:

1. Corrected/Clarified Draft Discharge Permit for the above-referenced case in redlined/tracked changes format, reflecting the corrections/clarifications made since the last draft, and
2. The same Corrected/Clarified Draft Discharge Permit in **CLEAN** form, without the redlined/tracked changes.

Please advise if the attachments do not transmit properly or you are unable to open them for some reason.

Sincerely,

Mikal Altomare

<<RaserGT-001-4-10-2009_permitdraftCLEAN.pdf>> <<RaserGT-001-4-10-2009_permitdraftREDLINE.pdf>>

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April 10, 2009

Mikal M. Altomare
Assistant General Counsel
Oil Conservation Division
Energy, Minerals & Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

RE: LOS LOBOS RENEWABLE POWER, L.L.C. - LIGHTNING DOCK
GEOTHERMAL NO. 1 (HI-01) DISCHARGE PERMIT (GTHT-001)

Dear Mikal:

Thank you for the copy of the Corrected/Clarified Draft Discharge Permit sent earlier today by e-mail. As you are aware, the notice of public hearing in connection with the proposed approval, first published on March 6th, 2009, referred the readers to an obsolete draft discharge permit, dated May 28th, 2008 and not the draft discharge permit e-mailed to AmeriCulture on April 3rd in advance of the hearing, nor the draft discharge permit e-mailed to AmeriCulture today.

It was asserted during the April 7th hearing that the record was to be closed on Thursday, April 9th. Notwithstanding the fact that the Corrected/Clarified Draft Discharge Permit was sent to AmeriCulture beyond this date, and is still not available on the OCD website, AmeriCulture is submitting this letter on the same day we received the Corrected/Clarified Draft Discharge Permit.

According to NMAC 20.6.2.3109.B, "The administrative record shall consist of.....and, if a public hearing is held,....any post hearing submissions." Since the written comment period "of at least 30 days" commences on the date of the first publishing of the public notice, and post hearing submissions (necessarily beyond 30 days from first publishing) are to be included as part of the administrative record, I am sending herewith, on behalf of AmeriCulture, a post hearing submission consisting of a summary of issues raised during, or emanating from, the April 7th continuation hearing, that AmeriCulture maintains need be considered by the OCD for inclusion into the proposed approval.

- 1) We learned during the cross examination of Raser witness Mike Hayter that the injection well devised by John Shomaker and mentioned in his September 19th, 2008 e-mail Jim Rosser, designed to "maintain the heads" of AmeriCulture completions are one -in the same as well 51-07. We learned from further

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examination of Jim Witcher, that the hydraulic connection required to make this scheme work introduces the possibility of chemical contamination of AmeriCulture's production wells. The injectate is anticipated to have higher TDS than surrounding ground waters and it is possible, in fact likely, that the injected water will also migrate out into surrounding lower-TDS groundwater, resulting in contamination. Raser's injection well completions must be required to terminate below confining cap rock to prevent vertical migration of injected fluids into shallow groundwater. No communication between the injection zone and shallower groundwater should be permitted.

- 2) The permit should include language that specifically sets forth that Raser's operations will be shut in should WQCC standards set forth in NMAC 20.6.2.3103, or background, be exceeded in any of the monitoring or water supply wells as a result of Raser's activities.
- 3) The permit should include adequate financial assurances from Raser to insure that in the event of an environmental contamination, that the costs for any abatement or environmental cleanup, and hence the protection of the interests of the citizens of New Mexico, are assured.
- 4) The permit should require that before any operations commence, that Raser provide, according to NMAC 20.6.2.3106.C.7, "any additional information that may be necessary to demonstrate that the discharge permit will not result in concentrations in excess of the standards of Section 20.6.2.3101 NMAC..."
- 5) In Section 21G of the permit, the language should be expanded to include all correlative rights, present and future.
- 6) The permit should require quarterly sampling frequency for the first two years and semi-annually thereafter.
- 7) The monitor well design is inadequate to provide long-term sampling viability with evolving cone of depression from production and from water mounding associated with injection. Delay in acquiring data while waiting to acquire a drilling contractor and construction of a new monitor well may result in failure to recognize a problem in a timely fashion. Potential solutions may involve longer screen intervals. Furthermore, nested wells, with different and discrete screened intervals at depth, should be required.
- 8) The permit should include the AmeriCulture 1 State well in the Water Supply Wells Monitoring Program outlined in Table 3 of Attachment 1.
- 9) The permit should require that a hydrogeologist report be submitted before final approval of production and injection operations. The report should provide at a minimum the following: a) a description of producing zones in terms of lithology, hydraulic conductivity, and detailed baseline water chemistry; b) the identity of confining units over production and injection zones in terms of lithology and thickness; and c) a ground water model detailing the long term hydrogeologic impact of combined production and injection.
- 10) The permit should specify a requirement for surface casing string shoe be located on competent rock in addition to a pressure test of the casing. Afterwards, the

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cement at the casing shoe should be drilled until formation is encountered and then the hole should be pressure tested again to insure formation integrity at the surface casing shoe.

Thank you for your time this morning. Should you have any questions, please don't hesitate to call.

Sincerely Yours,

Damon E. Seawright
President