



THE STATE OF WYOMING

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## Department of Environmental Quality

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March 3, 1994

Mr. William J. Almas  
Environmental Manager  
Energy Fuels Nuclear, Inc.  
1200 17th Street, Suite 2500  
Denver, CO 80202

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RE: Reno Creek Project Amendment Application, TFN 2 2/309

Dear Mr. Almas:

This letter confirms the minimum responses that are necessary before the Department of Environmental Quality can give Energy Fuels Nuclear, Inc. (Energy Fuels) permission to restart monitor well and wellfield installation at the Reno Creek amendment site.

*The following items are extracted from my letter of January 21, 1994, and retain the numbering from that letter. Please respond with the same numbering format.*

### I.C.3. Section 2.2, Surface Rights, Page 2-3 (GM)

#### Surface Owner Consent

Energy Fuels Nuclear (Energy Fuels) is apparently claiming the right to occupy and use the surface through mineral leases. The Environmental Quality Act requires that where the surface and mineral owners are different, specific surface owner consent to the proposed mining and reclamation plan is required.

Review of the Surface Ownership and Mineral Ownership sections of the application found numerous occasions where surface ownership is required. Surface ownership is not required from any person where that person owns any portion of the mineral proposed to be mined.

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Surface Owner Consent as described by W.S. § 35-11-406(b)(xi) is required for the following tracts:

- a. Section 22, SW  $\frac{1}{4}$

Surface owner consent is required from Bernice Groves.

- b. Section 27, W  $\frac{1}{2}$

Surface owner consent is required from Bernice Groves.

- c. Section 28, All

Surface ownership is required from Bernice Groves.

- d. Section 29, All except SW  $\frac{1}{4}$

Surface owner consent is required from James E. and Edra June Drake.

- e. Section 29, SW  $\frac{1}{4}$

Surface owner consent is required from August G. Laur.

- f. Section 30, E  $\frac{1}{2}$ SE  $\frac{1}{4}$

Surface owner consent is required from August G. Laur.

- g. Section 31, NW  $\frac{1}{4}$ NE  $\frac{1}{4}$

Surface owner consent is required from Heirs of Sinadin Estate including Dorothy Reichmuth, Mrs. Terry Berquist, Nolan and Ann Diehl, Rev. Eugene Sullivan, and Rev. Gerald Sullivan.

- h. Section 33, NE  $\frac{1}{4}$

Surface owner consent is required from Clayton and Cindy McGuire.

- i. Section 33, NW  $\frac{1}{4}$

Surface owner consent is required from Bernice Groves.

- j. Section 33, SW ¼  
Surface owner consent is required from Bernice Groves.
- k. Section 34, W ½  
Surface owner consent is required from Clayton and Cindy McGuire.
- l. Portions of Sections 21, 28, 29, and 33  
Surface owner consent is required from the Wyoming Department of Transportation.

**I.F. HYDROLOGY, APPENDIX D-10 (Page 9)**

**3. Section 10.3.2, Aquifer Characteristics, Page 10-10 (SI)**

- a. Does the reference to Ore sand refer to the Upper Ore Sand, the Lower Ore Sand or both?
- b. The discussion on Page 10-10 and Table 10.3-3a should include a description of which of the Ore Sand units is being tested. The pump test results will be discussed in a different section of this review.

**4. Section 10.3.3, Confining Unit Characteristics, Page 10-11 (SI)**

- a. The text indicates that 52.2% of the formation between the unnamed coal marker bed and the ore sand consists of shale and tight silt. This means that the remaining 123 feet consist of sands. Please explain why these sand units cannot be considered the first underlying aquifer.
- b. The text on Page 10-12 indicates that the upper aquitard cores were taken from a silty interval. It has been previously stated that the upper aquitard is the Felix Coal. Please explain the discrepancy.
- c. The text on Page 10-12 states that the cores have been disturbed. This disturbance may either increase or decrease the lab measured permeability. Please discuss the level of confidence in the measured values.
- d. Identify the lab which performed the permeability testing.

5. **Section 10.3.3, Confining Unit Characteristics, Page 10-11 (GM)**

The definition here of the Upper Aquitard as consisting of the Felix coal is difficult to accept. In the eastern Powder River Basin the coal seams are often among the better aquifers in the area; this is the case with the Felix Coal. At the Hoe Creek Underground Coal Gasification site, located 26 miles due north of the Reno Creek project area, both the Upper and Lower Felix coals have been found to be prolific aquifers.

To refer to the Felix Coal as an aquitard at this site will require considerable documentation and test data. None was submitted.

Energy Fuels must supply data to support their contention that the Felix Coal will function as an aquitard.

**III.B. Aquifer Tests, Section 10.1 (SI)**

9. Only one valid multi-well test can be used to assess the storage coefficient for the Ore sand. With the high variability of the transmissivity, hydraulic conductivity and the variable confining characteristics of the Ore sand additional multi-well tests should be performed.

In addition, the following items are needed as established during our meeting in Casper on February 10, 1994, and outlined in your letter of February 18, 1994:

1. **Comment F-4, A, Page 9 (SI)**

Modification of the text of Appendix D-10 to more clearly state the confining unit characteristics of shales below the ores zone. Included in this definition will be a specific discussion of the meaning of discontinuous and thin sands used within Appendix D-10. Energy Fuels will provide additional discussion concerning the nature of the underlying aquitard, especially in Mine Unit No. 1.

2. **Comment F-5, Page 10**

Energy Fuels will provide additional explanation and characterization of the Felix Coal within the Upper Aquitard. If Energy Fuels opts to monitor the upper portion of the Ore Sand as the next overlying aquifer above the ore sand in Mining Unit No. 1, Energy Fuels must establish the normal amount of operating vertical flare.

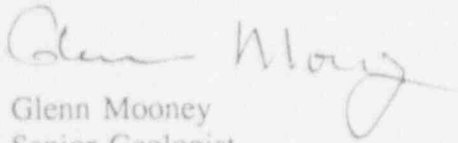
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**Additional Data (SI)**

Energy Fuels will submit a more accurate potentiometric surface map of the Ore Zone Aquifer.

Please feel free to call me if you have any questions.

Sincerely,



Glenn Mooney  
Senior Geologist

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cc: R. Chancellor  
R. Hall, NRC  
B. Lucht, WQD  
S. Ingle

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